



## 1.0 ACTIVITY DESCRIPTION

- 1.1 In response to the COVID-19 public health emergency, INGAA Foundation members are taking steps to protect our workers and the people in the communities where we work as we stay committed to our dedication to “Create and maintain a safe and reliable natural gas pipeline system that serves the energy needs of North America.”
- 1.2 The Department of Homeland Security and numerous state agencies have identified natural gas pipeline operations, maintenance, and construction as essential infrastructure work. (See Cybersecurity and Infrastructure Security Agency, Guidance on the Essential Critical Infrastructure Workforce in Reference 7.1). Therefore, pipeline operators and service providers must implement plans to maintain the health and safety of their essential workforce and the public. The pipeline industry’s strong safety culture must be expanded to embrace the principles of infection prevention and control. Operators and service providers should be prepared to operate under this “new normal” for many months, until sufficient testing, treatment, and vaccines mitigate the COVID-19 threat to the pipeline workforce.
- 1.3 This Guidance is intended to aid INGAA Foundation members, as they navigate the risks posed by COVID-19, develop and implement plans to eliminate or minimize those risks, and continue to execute high-quality pipeline work that benefits the public.

## 2.0 PURPOSE AND APPLICABILITY

- 2.1 The purpose of this Guidance is to synthesize practices showing potential to prevent and control the spread of COVID-19 during pipeline construction, maintenance, and integrity-related field activities. Prevention refers to practices that are expected to reduce the likelihood of a COVID-19 infection. Control refers to practices that respond to a potential COVID-19 infection to mitigate further spread within a worksite, company, or community. The control and prevention practices compiled in this Guidance are not a substitute for a company- or project-specific pandemic plan or strategy.
- 2.2 While this Guidance is primarily intended to address construction activities in a field work setting, some of the practices may also be considered for other settings such as routine pipeline operations activities. Similarly, this guidance does not cover offsite, after-hours behavior, including construction camps. For such instances, employees should follow state/local health guidelines and requirements.



Document	Revision	Date
CS-H-04	2	July 30, 2020

- 2.3 To develop this Guidance, the INGAA Foundation utilized control and prevention practices from member companies, consulted with infectious disease and industrial hygiene experts, and relied heavily on guidance from the U.S. Occupational Safety and Health Administration (OSHA) and Centers for Disease Control and Prevention (CDC).
- 2.4 This Guide was developed when there was ongoing community transmission of COVID-19, limitations on real-time testing and tracing capabilities, and a lack of effective COVID-19 treatment, vaccine, or community immunity. If significant changes in these conditions occur, some of the recommendations in this Guidance may no longer be relevant. This Guidance may be reviewed when there are material changes in testing, vaccination, and/or treatment.
- 2.5 This Guidance outlines reasonable COVID-19 prevention and control methods based on member companies' learnings to date that are specific to the nature, scope, and scale of pipeline field work.
- 2.6 The recommendations presented in this Guidance do not supersede any federal, state, or local regulatory requirements. The practices described in this Guidance are not binding on any company and are not appropriate or necessary for every situation. This Guidance does not encompass every control and prevention practice. Before implementing practices that are included in this Guidance, companies should consult relevant federal, state or local requirements, evaluate job-specific needs, and consider how the COVID-19 pandemic has evolved since the publication of this Guidance.
- 2.7 Any information received by company personnel regarding the disclosure of COVID-19 symptoms must be reported to the company's Health and Safety Department, or equivalent, for ongoing monitoring and identification of health management strategies. Any communication to staff and/or any external parties about positive COVID-19 individuals should involve the company's Human Resources Department to ensure that the individual's personal medical and identifying information are kept confidential, and that the privacy requirements and protected health information under the Health Insurance Portability and Accountability Act (HIPAA) and Americans with Disabilities Act (ADA) are followed. For more information, please see the Health and Human Services (HHS) webpage (Reference 7.10), and the Equal Opportunity Employment Commission (EEOC) webpage (Reference 7.4).

### 3.0 ROLES AND RESPONSIBILITIES

#### 3.1 Management *(includes all personnel with a supervisory role)*

- Provide resources (financial, technology, regulatory, etc.) to emergency response teams
- Manage external communications to public, regulators, clients
- Monitor overall project and business risks
- Determine revised staffing approaches needed to comply with health and safety work rules
- Instruct employees on the controls for the hazards at work locations and provide appropriate personal protective equipment
- Ensure employees are educated and trained on the latest pandemic protocols so work can be carried out in a safe and responsible manner
- Inform Human Resources Department about status of teams, including absences and those able to return to work
- Collect data regarding the effectiveness of the pandemic response plan

#### 3.2 Health and Safety Professionals

- Develop and continuously review an infectious disease outbreak response plan
- Coordinate and oversee implementation of the above plan including the standing up of a dedicated pandemic response team
- Create work rules to promote safety through prevention and infection control
- Regularly communicate information and provide training to employees through a variety of media

#### 3.3 Human Resources Professionals

- Monitor levels of sickness and absence
- Ensure employees have knowledge of and access to all employee assistance programs
- Liaise with organizational leaders regarding illness(es)
- Ensure compliance with applicable laws governing privacy of personal medical or identifying information and related matters

#### 3.4 Employees

- Review, understand and follow all pandemic-related response plan protocols and procedures

### 3.5 Contract Personnel

- Ensure on-site employees are familiar with and follow all site-specific client pandemic protocols and procedures

### 3.6 Visitors

- Visitors should avoid all workplaces while pandemic response plans are in effect
- If a visit is essential and has been cleared by senior management, visitors must first be familiarized with all site-specific client pandemic protocols and procedures and must agree to follow them

## 4.0 DEFINITIONS AND ACRONYMS

The following are relevant definitions that may aid in the understanding and interpretation of this guidance. These definitions were adapted from the Summit Medical Group (Reference 7.3).

Term	Definition	How does it relate to COVID-19?
<b>Asymptomatic</b>	Showing no evidence of disease/illness	Just because a person is asymptomatic doesn't mean they aren't infected with COVID-19.
<b>Community Spread</b>	Spread of a disease where the infection source is unknown	At this point there is community spread in many areas of the US, meaning there are people who have the infection without any special risks of contracting the virus, such as travel or exposure to a known infected person.
<b>Coronavirus</b>	A family of viruses that cause illness ranging from the common cold to more severe diseases	The novel (new) coronavirus that emerged in late 2019 has been named SARS-CoV-2 and causes the disease known as COVID-19.
<b>COVID-19</b>	Name of the disease caused by the novel coronavirus SARS-CoV-2	COVID-19 is short for Corona Virus Disease-2019.
<b>Immunocompromised</b>	Having an impaired or compromised immune response.	People may be immunocompromised due to an underlying condition or due to a medication they are taking for a condition. Being immunocompromised may put a person at higher risk for COVID-19.

Term	Definition	How does it relate to COVID-19?
<b>Pandemic</b>	A disease prevalent throughout an entire country, continent, or the whole world. A pandemic is an epidemic that has spread over a large area.	The World Health Organization (WHO) uses pandemic to refer to new diseases people do not have immunity for that have spread worldwide. The WHO has declared the coronavirus outbreak a pandemic.
<b>Self-quarantine</b>	Choosing or volunteering to isolate out of caution	Individuals who have been exposed to the new coronavirus and who are at risk for contracting COVID-19 might practice self-quarantine. Health experts recommend that self-quarantine lasts 14 days.
<b>Physical or Social Distancing</b>	Measures that reduce contact between large groups of people	Given the community spread of disease, this means minimizing contact with any people that you don't need to be in contact with. The Centers for Disease Control and Prevention (CDC) specifically recommends maintaining six feet between people.
<b>Quarantine</b>	Strict isolation imposed to prevent the spread of disease	To help stop the spread, people have been placed into quarantine when they are not currently sick but have been or may have been exposed to the virus.
<b>Virus</b>	An infectious agent that replicates only within the cells of living hosts	COVID-19 is a virus that spreads through droplets expelled after coughing, sneezing, exhaling, or talking from the mouth and/or nose of a person who has the virus.

## 5.0 PREVENTION

### 5.1 Screening

Screening should be used to determine the potential of an individual spreading COVID-19 at the worksite. The result of an individual's screening may result in one or more of the following:

- Symptom free
- Symptoms reported or detected that require further evaluation from medical professionals



Due to the uncertainty of the COVID-19 screening, it is important to note that:

- Individuals may be asymptomatic, but still be carrying COVID-19
- Individuals may have symptoms, but test negative for COVID-19 because of other illnesses
- Individuals may have low severity (sub-clinical) symptoms that they attribute to other illnesses such as a cold or allergies
- Individuals may not be truthful in self/peer assessments

COVID-19 can present with symptoms differing in degrees of severity. Symptoms of COVID-19 may appear 2 – 14 days following exposure. It is important to identify any individuals presenting symptoms before they enter the worksite and potentially transmit COVID-19 to others. The screening process may include a set of questions and physical tests, completed by designated screeners.

Employees should be asked to remain vigilant in monitoring their health for the following symptoms:

- Temperature over 100.4° F
- Fever, chills, or sweating
- Shortness of breath or difficulty breathing
- New or worsening cough
- Sore throat
- Headache
- New loss of taste or smell
- Muscle pain

Before any individual enters the worksite, the designated screener should ask if they have recently experienced or are experiencing any of the above symptoms, or if any of the following events have occurred:

- In the past 14 days have you returned from travel to any locations outside of the country?
- In the past 14 days have you had close contact with someone who has traveled to locations outside of the country?
- In the past 14 days have you had close contact with someone who has traveled to States or Metropolitan areas currently under CDC issued Domestic Travel Advisory (Reference 7.8)?
- In the past 14 days have you had close contact with someone who is confirmed as having COVID-19?

- Do you have any of the following: fever, cough, shortness of breath, difficulty breathing, sore throat, runny nose, muscle pain?
- Have you been advised to self-isolate or be quarantined due to exposure to COVID-19?

If any individual answers yes to any of these questions, they should be referred to the on-site medic, nurse, or other designated medical personnel. If site medical personnel are not available, they should be referred to a local clinic or hospital.

If any of the following symptoms are reported, call 911, as according to the CDC, these are considered emergency warning signs\*:

- Trouble breathing
- Persistent pain or pressure in the chest
- New confusion or inability to arouse
- Bluish lips or face

**\*This list is not all inclusive. Please consult a medical provider for any other symptoms that are severe or concerning.**

In addition to asking questions, a designated screener should take the temperatures of all individuals entering the jobsite. If anyone presents with a temperature greater than 100.4°F, they should be referred to a medical professional.



Companies may also ask employees working in the field or at a company facility to take their temperature at home before coming to work. At the end of the workday, temperatures may be taken at a dedicated and secured company testing site prior to returning home.

Individuals presenting with the above symptoms, including elevated temperature, should not be allowed on-site (other than on-site medical), or in proximity to other individuals until they have a negative test result or results





for COVID-19 confirmed by a medical professional and have otherwise been cleared fit to return to duty.

Screenings should be performed before any individual exits their vehicle in the yard or as they enter the jobsite before they disperse to their respective work locations.

The screenings should be performed by designated individuals trained on the appropriate screening tools, PPE, safety precautions, recordkeeping, and response plans. The typical professions noted below may be suitable screeners (in order of preference):

- Site medic or nurse
- Safety professionals
- Foremen/crew leads or other designated and trained individual

Anyone performing the screenings are at a higher risk of exposure. They should follow strict guidelines for proper PPE and disinfection. They should also receive priority for any protective equipment that may be in limited supply.

The results of the COVID-19 screenings should be retained and/or communicated as follows:

- Daily sign-in sheets and visitor logs should be retained and denoted with screenings performed
- Documentation of screenings should be managed in order to maintain the appropriate confidentiality and to meet company requirements for recordkeeping
- Personal medical information collected on the screening records should be limited to appropriate company representatives for review.
- If someone tests positive for COVID 19, the appropriate company representative should contact any individual(s) that may have been in contact with that person in the workplace to ensure they are tested and do not return to the jobsite until all back-to-work steps (refer to Section 6.1) are met.

## 5.2 Sanitizing and Hygiene

All employees should wash hands with soap and water for a minimum of 20 seconds regularly throughout the day. If soap and water are not available and hands are not visibly dirty, an alcohol-based hand sanitizer that contains 60-



95% alcohol may be used. However, if hands are visibly dirty, employees should always wash hands with soap and water.

Key times to clean hands include:

- After blowing one's nose, coughing, or sneezing
- After using the restroom
- Before eating or preparing food
- After cleaning or handling shared tools
- After contact with animals or pets
- Before and after smoking, putting on cosmetics, contact lenses or dentures
- After touching potentially contaminated common surfaces (e.g. elevators, doors)
- Before and after providing routine care for another person who needs assistance

Frequent hand sanitizing should be encouraged by posting signage and posters in the common languages of the worker population demonstrating proper hand washing techniques in conspicuous locations, such as construction trailers, break locations, restrooms and areas where food is prepared or eaten. Hand washing stations with soap and water and alcohol-based hand sanitizer should be made readily available.

## Tools, Materials and Cell Phone/Electronic Devices

Shared tools, materials and equipment controls should be disinfected with disinfectant solution or wipes prior to use and at the end of the workday or shift. Cell phones and electronic devices should not be shared or placed on common areas (e.g. put it in your pocket). They should also be periodically disinfected. Visibly dirty or soiled materials should be cleaned with a detergent

Examples of Disinfectant Wipes are:

- Alcohol solutions with at least 70% alcohol
- Clorox Disinfecting Wipes
- Oxivir 1 Wipes
- PURRELL Professional Surface Disinfectant Wipes





or soap and water first and then disinfected. Manufacturer instructions should be followed when cleaning and disinfecting. Examples of effective disinfectants are provided below. Any of the EPA-registered disinfectants described in Reference 7.2 can be used. Hands should be washed immediately after cleaning tools and materials.

For disinfection, diluted household bleach solutions (5 tablespoons of bleach per gallon of water) or alcohol solutions with 70% alcohol may also be used.

Frequent tool/material and cellphones/electronic device disinfecting should be encouraged by posting signage at the work site. Disinfecting materials should be made readily available. Tool/material disinfecting should be included in applicable Job Safety Analyses (JSAs) during the pandemic.

### **Other surfaces**

Cleaning visibly dirty surfaces, and disinfecting surfaces, are best practice measures to prevent the spread of COVID-19 and other viral respiratory illnesses in the workplace. The following surfaces should be disinfected on a more-than-normal regularity:

- Construction trailers, desks, and workstations
- All frequently touched surfaces, such as doorknobs and door handles
- Equipment storage areas
- Mobile equipment cabs
- Restroom facilities
- Kitchen areas to include push buttons, faucets, handles/buttons on kitchen appliances
- Vehicles, especially busses and crew trucks

High touch areas such as door handles, light switches, desks/workstations, equipment controls, and vehicle steering wheels should be disinfecting at the beginning and the end of the workday or each shift. Other areas of the workplace, such as portable toilet facilities, should be cleaned more frequently (2-3 times a week) than normal.

### **Linens, Clothing, and Other Items That Go in the Laundry**

- Do not shake dirty laundry; this minimizes the possibility of dispersing virus through the air.
- Wash items as appropriate in accordance with the manufacturer's instructions. If possible, launder items using the warmest appropriate

water setting for the items and dry items completely. Dirty laundry that has been in contact with an ill person can be washed with other people's items.

## **For soft (porous) surfaces such as carpeted floor, rugs, and drapes**

- Remove visible contamination if present and clean with appropriate cleaners indicated for use on these surfaces.
- If the items can be laundered, launder items in accordance with the manufacturer's instructions using the warmest appropriate water and air setting for the items and then dry items completely.
- Otherwise, use products with the EPA-approved emerging viral pathogens claims (See Reference 7.2) that are suitable for porous surfaces

## **Personal Hygiene**

In addition to frequent hand hygiene, employees should follow these hygiene practices:

- Do not touch the face, eyes, nose or mouth.
- Cover coughs and sneezes with a tissue or the inside of the elbow or upper arm and sanitize hands after.
- Remove work clothing, shoes, etc. and shower immediately once returning to home location at the end of the workday.
- Keep shoes outside of the home and wash work clothing before it contacts other clothing or surfaces.
- Clean and disinfect vehicles daily

COVID-19 disinfecting and hygiene is the responsibility of all employees and all will benefit from effective practices. All employees are encouraged to use Stop Work Authority when personnel are observed not following proper hygiene guidelines. Employees should also communicate concerns to their supervisor.

Management is responsible for ensuring disinfecting and hygiene expectations are understood and being monitored. Work site observations will enable adjustments to protocols if necessary. Hygiene and disinfection may be integrated as components of safety observation and inspection programs.

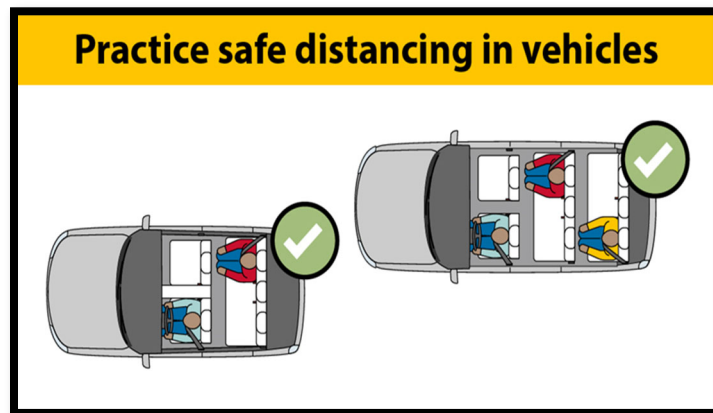
### 5.3 Physical Distancing and Density Reduction

Employees can slow the spread of COVID-19 by making a conscious effort to keep a physical distance between each other. Physical (social) distancing is proven to be one of the most effective ways to reduce the spread of illness during an outbreak. The fundamental idea behind physical distancing is to maintain two arm lengths (6 ft/2 m) between each person and avoid all forms of direct physical contact (e.g., handshaking). Where social distancing cannot be maintained because of the nature of the work, face coverings or other controls should be used. Reference the CDC Guidance (See Reference 7.6) for proper controls.

#### Transportation

Transportation to and from the worksite should also include physical distancing.

- If employees must ride in crew trucks or other vehicles together and if practical and sufficient parking exists, they should limit to 2 people in a vehicle. Individuals should be seated as far apart as possible, wear face coverings, and drive with open windows for the duration of the journey if possible.
- Employees should try to travel with the same people every day to minimize virus spread. If using designated work teams, employees should only travel with those on their team.



- If employees must travel by bus, maintain 6 feet between passengers and add extra buses if possible. Passengers should be limited to one person per bench seat and everyone on board should wear face coverings. Passengers should be staggered from front to back so that

no one is sitting directly in front of or behind another passenger. The bus should travel with the windows down, weather permitting.

- Vehicles and buses should be disinfected on a routine basis and after each use with an EPA-registered disinfectant.
- UTVs and ATVs should be used by a single employee if possible.

### Pre-Job Meetings

Pre-job meetings are a key element of maintaining a safe workspace. During pre-job meetings, employees should maintain physical distancing by:

- Observing a 6 ft (2 m) distance from others
- Wearing a face covering if 6 ft (2m) of physical distancing cannot be maintained at all times
- Trying to achieve a maximum of 10 people per meeting group
- Holding meetings outside if possible
- Facing upwind
- Asking for verbal agreement from all employees on the pre-job briefing, which is then recorded by one person to avoid individual signing of the form.
- If signing is absolutely required, employees should only use their own pens.

### Working in Proximity

Implementing physical distancing in the workplace will require changes to normal work practices. For example:

- Wherever possible, hold virtual meetings or cancel non-essential meetings.
- Where meetings of small groups take place, mark proper spacing for employees on the ground.
- A COVID-19 hazard assessment should be done for all on-site work
- Controls should be put in place for activities and tasks where physical distancing cannot be safely maintained between employees (See Reference 7.6).
- If safe, have work completed by single employees instead of pairs or groups.

- Have employees maintain distance during breaks (e.g. take lunches in vehicles or away from each other.)
- Consider adopting a team roster to create designated work groups that are self-sufficient teams over a longer period to minimize potential for contact among people throughout the day. These teams of employees may be provided with dedicated resources (e.g. wash stations, portable toilets) to prevent cross-contamination among groups. If possible, the designated teams should also include common travel and living arrangements.
- Set a schedule for lunch/break time to limit the number of persons in the break room.
- Minimize sharing of tools or equipment and disinfect tools per the guidance in section 5.2.
- Ensure trailers are set up to provide 6 ft (2 m) distance between workspaces and if necessary, increase the number of trailers. Ensure disinfection of trailer spaces is conducted routinely.

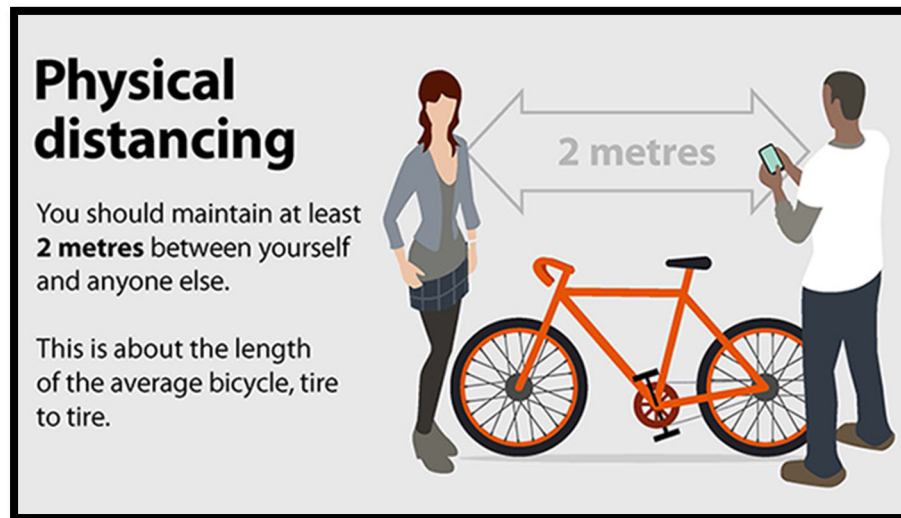
Some tasks require close, physical teamwork and therefore special procedures are needed. Suggested changes to work practices include:

- Minimize the time spent in close proximity during work processes and limit the number of employees that need to work within 6 ft of each other.
- Maintain a small number of crew partners throughout the shift to minimize person-to-person contacts.
- Wear masks (if safe for the task) or a visor to prevent expulsion of droplets and wear disposable gloves under task-specific gloves if possible and it doesn't interfere with grip.
- Work crosswind of one another and avoid working downwind from each other if possible.

Changing existing work processes will initially be difficult and will require education and frequent reminders until the new procedures become a habit.

- All employees should be provided with company-specific COVID-19 guidelines and their verbal acknowledgement of reading the documents should be recorded.
- COVID-19 prevention should become a standard part of pre-job briefings and hazard analyses.

- Posters in key areas can also be used to remind employees of the need for physical distancing. The following is an example of a simple poster illustrating the 6 ft/2 m rule.



Once workgroups are aware of the new processes, recording and reporting should be rolled into a company's existing safety observation systems. The practices can be measured and monitored through observation, inspection, and audit programs.

Supervisory oversight is important to ensuring proper distancing, hygiene, sanitation, PPE usage, and other COVID-19 practices. A safety watch, hygiene officer, or distancing coordinator may be assigned to ensure that new work procedures are followed. In lieu of a specific position being assigned, companies will need to reinforce the role of additional supervisory oversight.

Like all safety-related procedures, measurement is key to ensuring that workgroups adopt and practice these new guidelines. Reactions should not be punitive; rather supervisors should educate, support, and remind employees of the importance of preventing the spread of COVID-19.

Additional supervisory oversight can be used to monitor how well the guidelines are being implemented and to provide immediate feedback to the employees when the new guidelines are not being followed. Companies may choose to informally monitor how many times the practices are not followed to determine what processes may need to be modified. This role can also be used to suggest additional changes and continuous improvement as the organization responds to COVID-19.



## 5.4 Personal Protective Equipment (PPE)

In addition to standard PPE, to help prevent the spread of COVID-19, the following additional PPE should be used. Some of this PPE is outside traditional definitions and includes disinfecting products.

Face-covering masks (Note: Follow CDC's guidance (See Reference 7.9) on how to make and use cloth face coverings):

- Can be disposable
- Can be cloth (multiple layers are recommended)
- Can be homemade
- Must be made from non-static producing materials such as cotton
- May need to be flame resistant depending on work tasks

Other PPE includes:

- Safety glasses, goggles, or face shields/visors
- Portable water stations
- Plain soap and water
- Liquid Hand Sanitizer with active ingredient of at least 60-95% alcohol
- Alcohol-based hand sanitizing wipes
- Disinfectant wipes/spray (based on the EPA's List N or CDC Guidelines)
- Paper towels or tissues
- Latex or Nitrile Gloves
- Tyvek Coveralls

PPE must not endanger the worker who is wearing it such as limiting field of vision or creating entanglement hazards. In this case, alternatives should be considered.

## Cleaning and Disinfecting PPE

Any reusable PPE (e.g. face shields) must be properly inspected, cleaned, decontaminated, and maintained after and between uses. PPE that cannot be cleaned and disinfected should be disposed of after use.

The following cleaning and disinfecting procedures should be followed for key PPE:

- Disposable face masks
  - Dispose in a trash bin at the end of the day or when they become soiled avoiding direct contact with hands



Document	Revision	Date
CS-H-04	2	July 30, 2020

- After removing the mask, immediately wash hands with soap and water
- Cloth/Homemade
  - Wash hands with soap and water any time the mask is touched or removed
  - Once arriving home after work, immediately take mask off and along with your clothing and wash (it is okay to wash the mask along with other clothes)
  - Wash using the warmest appropriate water setting possible (preferably above 167°F) and dry completely at the highest temperature possible without damaging the mask.
  - Clean and disinfect any surface where dirty face masks, clothing, towels, or other clothing were placed or stored prior to washing
- Safety Glasses, Goggles, or Face Shields
  - If provided, follow manufacturer instructions for cleaning and disinfecting
  - If manufacturer instructions are not available, then proceed as follows for all glasses, goggles, face shields or the like:
    - While wearing gloves, carefully wipe the inside, followed by the outside of the glasses/goggles/face shield with a clean cloth saturated with a neutral detergent solution or cleaner wipe
    - Carefully wipe the outside using a wipe or clean cloth saturated with an appropriate disinfectant solution
    - Wipe the outside shield with clean water or alcohol to remove residue
    - Fully dry by air drying or wiping with clean absorbent towels
    - Remove gloves and wash hands
- All cleaning of PPE should be consistent with manufacturer's recommendations and/or CDC guidelines.
- Employees should immediately notify supervision if a piece of PPE requires repair or replacement. PPE that is in disrepair or not able to perform its intended function should not be used.

### Proper Glove Removal



## 5.5 Communication

Throughout the COVID-19 response, employees should be informed about COVID-19 developments; company policies, actions, local governmental requirements, and recommendations; and hygiene, sanitation, physical distancing, PPE, risk factors, and other COVID-19 practices. Communications should emphasize updates on COVID-19 from reputable sources and how the organization is responding.

Electronic means to inform employees may include active communications and passive communications like information repositories. Active communications should be limited to brief updates on COVID-19, new directions regarding prevention and control methods, and be limited to clear direction from the company and reliable information that has been vetted by



the federal agencies such as CDC or FEMA or state/local agencies such as departments of health.

To communicate with employees, organizations should:

- Post information regularly through electronic and physical means (examples below)
- Describe how decisions were made about issues such as travel, working from home, and other issues that directly affect the employees.
- Communicate no less than every other day, but limit communications to information that is reliable and relevant to them

Active electronic methods of communication may include:

- Emails
- Video Conference meetings (Skype, ZOOM, MS Teams, etc.)
- Conference Calls
- Company-wide text messaging services

Passive communications may include:

- E-Newsletters
- E-Posters
- Information shared on the company website, SharePoint, Google Drive, or other file storage platforms

To demonstrate practices, companies may wish to produce:

- Written guides
- Video instruction

News should be shared with employees to ensure they have up-to-date information. Updates should be based on the relevant federal, state, and local agency websites and news releases. Information like the following may be shared: number and trends of cases in worker location(s), demographics, hospitalization data, and testing data. Specific information about the company may also be provided like location-specific trends and updates; response plans; and organization-specific quarantine or isolation numbers; cases; and approaches.

Each organization should have a strategy for communicating the importance of prevention. This could include the urgency of the situation, proper hygiene and sanitation practices, physical distancing, and other effective practices to

limit the spread of COVID-19. It should be recognized that these practices are not yet habit, and that employees need reminders and support. The information may be shared in the following media:

- Bulletins
- Newsletters
- Tool-Box Talks
- General email
- Posters
- Videos
- Articles
- Organization website
- Social media posts

Health and safety best practices should always extend beyond the workplace. With long work hours and household responsibilities, time may be limited for employees to research best practices for COVID-19. To assist employees, companies should consider communicating with employees regarding the following “outside the workplace” topics:

- General COVID-19 facts
- When to stay home from work
- Hygiene regimens (handwashing, laundering, etc.)
- Physical/Social Distancing with COVID-19
- Symptoms of COVID-19
- Avoiding spreading of viruses
- Use of cloth face coverings when performing personal errands
- Managing stress and anxiety

## 6.0 CONTROL

### 6.1 Response to Symptoms

**Medical Emergency:** Employees should notify project supervision immediately and supervisors should call 911 if they have any of the following symptoms:

- Severe, constant chest pain or pressure
- Extreme difficulty breathing
- Severe, constant lightheadedness
- Serious disorientation or unresponsiveness

Any worker with the above symptoms should be isolated and a face mask should be worn until medics arrive.

**Non-emergency:** If an employee feels ill, or if someone observes that a person is exhibiting symptoms associated with a public health emergency, the company's designated COVID-19 response personnel should be contacted. For all cases where an individual presents symptom(s), the organization should:

- Prevent direct contact with the affected employee by managing the process over the phone if possible
- Confirm symptoms with the employee to determine validity
- Assist the employee to leave the work site, avoiding the use of public transportation if possible
- Assist with connecting the employee with a health professional as appropriate
- Identify other individuals who have had recent, close contact with the affected individual and consider requiring these individuals to return home and isolate, depending on the type and severity of symptoms presented
- Continue to monitor the health of co-employees in the work area
- Ensure the employee's work area is cleaned and disinfected
- Check-in with the affected employee during their work absence and confirm appropriate criteria for return to work

### **Presumptive Cases:**

If a presumptively infected employee requires transportation from company personnel, the following steps and actions are to be taken:

- HSE Field Coordinator or designated individual should be notified, who will then notify appropriate personnel
- The nearest medical facility is to be contacted for arrangement of employee drop-off
- Only driver and affected persons transported should be permitted in the vehicle
- Driver should be provided with information regarding affected or actual employees condition and/or symptoms





Document	Revision	Date
CS-H-04	2	July 30, 2020

- Transportation should be completed by the most straightforward route, stopping only if necessary
- Driver should be required to wear appropriate PPE while transporting including face covering or mask, eye protection, and hand coverings
- Transported employee should be required to wear face covering or mask and hand coverings during process
- Transportation vehicle should be cleaned and disinfected following transport of employee
- HSE Field Coordinator or designated individual should be notified following process, who will then notify appropriate personnel

### **Positive Cases**

Verified identification of a positively-tested employee may not be completed on project sites, as this is acquired through medical evaluation. Therefore, the employee must inform the employer if they are positive for COVID-19, with backup medical documentation from their healthcare provider.

- Instruct the infected employee to stay home for at least 10 days and encourage them to self-isolate during that time. Employers should encourage positively tested employees to contact a qualified health care provider to determine whether a 10-day self-isolation is sufficient, depending on the particular facts and circumstances, or if the employee should undergo a 20-day self-isolation based on the severity of illness.
- If an employee is confirmed to have COVID-19 infection and had close interactions (<6 feet for 10 minutes) at the work site or with other employees during the two days preceding the onset of their symptoms or positive test, then employers should inform fellow employees of their possible exposure to COVID-19 in the workplace, but should maintain confidentiality as required by the Health Insurance Portability and Accountability Act (HIPAA) and Americans with Disabilities Act (ADA). The employer should instruct fellow employees about how to proceed based on the CDC Public Health Recommendations for Community-Related Exposure. See Section 6.2 for additional guidance related to employees who had close interactions with a positively-tested employee.
- Assure the infected employee that he/she will not be identified by name to their coworkers as having contracted the virus, as it is essential to remain in compliance with HIPAA and ADA privacy requirements.



Companies should consult their Human Resources and Legal departments for further guidance.

- If the unwell/symptomatic person is experiencing life-threatening symptoms of COVID-19, call 911 immediately and follow guidance from the operator. Inform the operator that the person is experiencing COVID-19 symptoms. COVID-19 life-threatening symptoms include:
  - Trouble breathing
  - Persistent pain or pressure in the chest
  - New confusion or inability to arouse
  - Bluish lips or face

## Returning to the Worksite after a Positive Test

In accordance with CDC guidance, a symptom-based strategy is now the preferred method to determine whether it is appropriate for an individual to discontinue their home isolation. A testing-based strategy is suggested only in special circumstances at the discretion of a qualified healthcare provider, for example, if an ill employee is severely immunocompromised.

Employees who are directed away from the job site to assist in preventing the spread of COVID-19 should follow their company's Return to Work protocol.

## ***Symptom-based strategy for discontinuing isolation and returning to work (Preferred):***

- **In accordance with CDC guidance, the following criteria must be met for an employee with a presumptive or positive *symptomatic* case to return to work:**
  - At least 24 hours must have passed since "recovery," defined as resolution of fever without the use of fever-reducing medications and improvement in symptoms and,
  - At least 10 days must have passed since symptoms first appeared.
  - In circumstances where an ill employee experiences severe illness or is immunocompromised, a qualified healthcare provider should be consulted in order to determine whether the employee



should undergo a 20-day self-isolation based on the severity of illness.

- **In accordance with CDC guidance, employees who are presumed or confirmed positive who DO NOT experience any COVID-19 symptoms (i.e. remain *asymptomatic*) may return to work:**
  - After 10 days have passed since the first positive test.

***Test-based strategy for discontinuing isolation and returning to work:***

- **In accordance with CDC guidance, the following criteria must be met for an employee with a presumptive or positive *symptomatic* case to return to work:**
  - At least 24 hours must have passed since “recovery,” defined as resolution of fever without the use of fever-reducing medications and improvement in symptoms and,
  - The employee has received two negative results received from two consecutive FDA authorized tests collected more than 24 hours apart.

## 6.2 Exposure Assessment and Action

Employees, contractors, or visitors who have had close contact with a person in the workplace (<6 feet for 10 minutes), with a suspected or confirmed case of COVID-19, including the 48 hours prior to the onset of symptoms of the positive case, are identified as **employees who may have been exposed to COVID-19**. Close contact is defined by the CDC as less than 6 feet and states: “It is reasonable to consider an exposure greater than 10 minutes as a prolonged exposure.” Once a suspected or confirmed case is identified, employers can then begin contact tracing in the workplace to identify those potentially affected individuals. Employees should take action to protect others and the facility/worksites if they may have been exposed.

Employers should consult with their Human Resources and/or Medical Services teams to determine what information can be shared and what is confidential. Employers should also attempt to discover date(s) the symptoms started so the 48-hour period can be determined. Per CDC guidelines, interviewing the worker may help identify if they have had exposure to a confirmed or suspected COVID-19 case. During this process, it is essential to



remain in compliance with HIPAA and ADA privacy requirements and follow public health guidelines.

The following questions can be used to help determine if there has been contact with a confirmed or suspected COVID-19 case:

- In the past 14 days have you returned from personal travel to any locations outside of the country?
- In the past 14 days have you had close contact with someone who has traveled to locations outside of the country?
- In the past 14 days have you had close contact with someone who has traveled to States or Metropolitan areas currently under CDC issued Domestic Travel Advisory?
- In the past 14 days have you had close contact with someone who is confirmed as having COVID-19 (close contact defined above)?
- Do you have any of the following: fever, cough, shortness of breath, difficulty breathing, sore throat, runny nose, muscle pain?
- Have you been advised to self-isolate or be quarantined due to exposure to COVID-19?

#### **Employer Actions to Exposure to Probable or Confirmed Cases**

Immediate actions should be taken by the company and the worker(s) when it is suspected that employees may have been exposed to a probable or confirmed COVID-19 case. Actions may include but are not limited to the following:

- **Communication:** Upon learning of a confirmed positive case, the company should communicate to any potentially affected people. Communications to employees, contractors and/or any external parties should be created ahead of time with standardized text that can be adapted to local context. Human Resources and/or Legal personnel should be involved in drafting the communication to comply with HIPAA and ADA confidentiality requirements. Personal medical information about an individual must be kept confidential and not used in any staff communication unless released in writing by the individual.
- **Quarantine:** Inform employees who have had potential contact with a confirmed COVID-19 case to make immediate arrangements to leave the worksite and return to their residence to self-quarantine for 14 days or seek medical support if/when symptoms appear.

- **Disinfection:** Any surface that a person with a probable or confirmed case has been in contact with must be thoroughly cleaned and disinfected before reuse/occupation. This includes work surfaces, tools, materials, vehicles, equipment and anything else that the worker may have touched. Follow local health authority guidance or, if not available, the CDC Cleaning Guidelines. Areas being cleaned should be demarcated and have access restricted. Once thoroughly disinfected, the area may be reoccupied after a minimum of three hours.

## Worker Actions When Exposure to Probable or Confirmed Cases

If the worker needs to report a potential contact with a probable or confirmed COVID-19 case, whether off-site or at the work site, they should take immediate actions to protect their fellow co-employees. Employers should communicate in advance regarding steps that employees should take if they have a potential contact with a probable or confirmed COVID-19 case, including the following steps.

If the worker with potential contact is still at their residence they should remain there and not come to the worksite. The affected worker should also:

- **Communication:** Immediately notify their company to receive further guidance on next steps. Medical support and/or testing may be required. There should be scheduled routine communications with the employee.
- **Quarantine:** Remain at home if no medical care is needed for 14 days in self-quarantine as determined by a healthcare provider. Minimize contact with those at home, implement routine cleaning and disinfection within the home, try to maintain 6 feet of distance from other household members, use separate bathrooms if possible and wash hands often.
- **Disinfection:** If the worker is not in need of medical care, tools and vehicles used for work should be cleaned and disinfected if possible, upon arriving home. Upon arriving at home, outer clothes should be removed outside the home if possible, bagged and taken inside to wash immediately on the highest wash and dry temperature available with regular laundry detergent. Shoes should be left outside or isolated for at least three days.



### Employees Returning to the Worksite after Potential Exposure

A worker with a potential contact with a probable or confirmed COVID-19 case but who does not display COVID-19 symptoms may return to the worksite under the following conditions (see Section 6.1 for return-to-work guidance for employees with a presumptive or positive case of COVID-19):

- 14 days of self-quarantine has passed, and the worker does not have symptoms, or
- The worker has received an approval letter from either a local health department or medical professional that it is safe to return. If this is prior to 14 days ending, it is recommended additional layers of protection are implemented at work for the remaining days including: wellness checks, wearing a face mask, and maintaining a distance of 6 feet or more from other employees.

Any medical or personal information that is obtained or used by Human Resources, or any other person, must be treated as confidential, as the company must remain in compliance with HIPAA and ADA privacy requirements. The information should be stored securely for safekeeping and to prevent unauthorized access to personal information.

The local health department should be informed of any confirmed positive cases at a worksite. Public health advice will help guide further steps regarding health and safety at the workplace. The CDC issued an interim guidance for essential employees and an excerpt is below for reference.

### Subsequent COVID-19 Exposure During Quarantine/Isolation or Following Recovery

Self-quarantine begins on the last day of potential exposure and extends for 14 days afterwards. Even during quarantine, it is possible that an employee may experience a COVID-19 exposure (e.g. exposure to a presumptive or confirmed positive case within the home). If this is the case, the quarantine period should be adjusted to last 14 days following the most recent exposure date.

In the event that an employee who has recovered from COVID-19 experiences a subsequent COVID-19 exposure **within three months** of symptom onset of their most recent illness, that employee should not be required to quarantine or be retested for SARS-CoV-2 according to CDC guidance. If a recovered employee experiences a subsequent COVID-19 exposure **three months after** symptoms onset, they should undergo a 14-day quarantine.

“CDC advises that critical infrastructure workers may be permitted to continue work following potential exposure to COVID-19, provided they remain asymptomatic and additional precautions are implemented to protect them and the community” with the following being adhered to:

**It is recommended that more robust protections be used in addition to this interim guidance when known contact occurs with positive COVID-19 cases or in areas with known community spread.**

- ▶ **Pre-Screen:** Employers should measure the employee's temperature and assess symptoms prior to them starting work. Ideally, temperature checks should happen before the individual enters the facility.
- ▶ **Regular Monitoring:** As long as the employee doesn't have a temperature or symptoms, they should self-monitor under the supervision of their employer's occupational health program.
- ▶ **Wear a Mask:** The employee should wear a face mask at all times while in the workplace for 14 days after last exposure. Employers can issue facemasks or can approve employees' supplied cloth face coverings in the event of shortages.
- ▶ **Social Distance:** The employee should maintain 6 feet and practice social distancing as work duties permit in the workplace.
- ▶ **Disinfect and Clean work spaces:** Clean and disinfect all areas such as offices, bathrooms, common areas, shared electronic equipment routinely.

## 6.3 Communication for Shut Down or Demobilization Plan

Considering the economic and health impact of COVID-19, an immediate work location (i.e. crew, location, office trailer) directly affected by a significant number of employees testing positive may need to be temporarily shut down as soon as practically possible when the positive tests have been confirmed. Consult with the local public health authorities to determine the proper steps to take and if any type of shutdown is necessary.

The communication plan for shutdown/demobilization should be included as part of a larger pandemic response plan. It is critical to have a robust and intentional but flexible framework for communication to employees and other stakeholders at the time of shutdown. The communication plan should be consistent with the larger business continuity plan so that messaging is consistent. The organization should also ensure that all communications are consistent with all positions the company will take regarding contract obligations, insurance claims, etc.

Other characteristics of the communication plan for the shut-down or demobilization of a project may include the following:

- The communication plan should consider various conditions under which a shutdown could occur. This includes shelter in place order, stop work order, or other orders. The company should identify and plan for various scenarios and identify the communication protocols in each



scenario. Not all construction projects are the same even within the same state or region, so a communication plan should be developed that can be adjusted to address these differences as needed.

- The communication plan should be multifaceted and include the overall communication strategy, appropriate notification tree(s), daily procedures, roles and responsibilities, reporting requirements, and follow up steps.
- The communication plan should identify strategies for internal communications (i.e. front-line employees, back office personnel, etc.) and external communications (i.e. critical vendors, key contractors or customers, etc.) and develop specific communications for each constituency.
- The communication plan should identify preferred methods of communication, e.g., posters/signs, mail, email, text alerts, intranet messages, etc. Available technologies should be leveraged when possible as such platforms can be very effective when communicating with employees who travel or work remotely. Communication platforms accessible by all employees should be developed to ensure a consistent message and avoid confusion among employees.
- Communication platforms may be developed for vendors, contractors, suppliers, customers, etc. so that communications are consistent, and third parties are current with the latest project information. This will minimize confusion that could potentially lead to delays when remobilization begins.
- Options for two-way communications should be established to give employees an ability to ask questions. This may be coordinated with project supervision.
- The organization may develop internal systems that ensure action items are completed in a timely manner and real-time information is shared with all relevant teams (e.g. safety, Human Resources, project management).
- Relevant communications from outside entities should be monitored and shared across teams.
- If employees will be expected to re-mobilize soon, provide clear and detailed information about necessary steps to be ready and fit for work at the time of re-mobilization. Employees should be encouraged to stay in close contact with project supervision and/or Human Resources about



their availability and health status. Travel and lodging limitations should be considered and addressed for traveling employees.

- Communications with employees should address more than work-related issues. The organization should acknowledge the economic and emotional stress that a loss of work during the pandemic can cause.
- Even during a shutdown/demobilization, companies should not lose sight of actions that will best position them to proceed safely when construction resumes.
- Communications should be simple, clear, and direct to build and maintain trust.

## 6.4 Shutting Down a Project

Considering the health impact of COVID-19, an immediate work location (i.e. crew, location, office trailer) directly affected by a significant number of employees testing positive may need to be temporarily shut down as soon as practically possible when the positive tests have been confirmed. Consult with the local public health authorities to determine the proper steps to take and if any type of shutdown is necessary. The diverse makeup of the workforce (age, health, etc.) makes it extremely important to exercise full precaution when information becomes available in order to prevent the potential spread. The employee and those in close contact should self-quarantine according to the guidance in Section 6.2 and current CDC recommendations.

The supervisor in charge of the project site should instruct employees to terminate the scope of work at a point it does not pose a hazard to the general public. The project area should be assessed to ensure all hazards are mitigated before leaving the project. The following actions should be considered in order to safely shut down a site:

- de-energizing equipment;
- securing materials;
- removing items from height that could fall in a storm or high winds;
- covering excavations;
- moving equipment to secure locations;
- securing site against earth movement and mitigating potential environmental impacts

As with any site shutdown, it is important to consider the worst-case scenarios regarding inclement weather, unauthorized intruders, public interface, and any other changes or issues that could develop while the work site is unattended.



Responding to site issues during a shutdown of activity requires vigilant and periodic monitoring of site conditions and local community concerns.

Periodic monitoring of closed sites should be put in place. Consider maintaining a skeleton crew of essential personnel for site monitoring, where allowed. Likewise, each site should consider third-party security may be necessary, fulltime or partial, during the shutdown if not already mandated by local law and/or not restricted by emergency orders.

Prior to shutting down a project site, consider the following to ensure the site is safe while idle:

### **Housekeeping and Preparation for Inclement Weather**

- Pathways and walkways both on and off the site should be free from mud, debris, and materials
- Trash receptacles should be emptied and secured
- All cords, leads, and hoses should be coiled or removed from floors and secured
- Materials including tarpaulins, plastic, and cardboard packaging that could be blown off site by wind should be fastened down or removed
- Remove any debris or material that may become airborne due to wind or inclement weather
- Inspect/secure all perimeter vertical guardrail or debris netting systems at the edge of buildings
- Check temporary structures are stable and able to withstand inclement weather conditions. In the case of all cranes, follow all manufacturer recommendations for shut down
- Ensure that all water taps are closed, and water flow turned off unless needed to maintain critical equipment.
- Heat tracing should be in place to prevent freezing. Flow alarms installed where needed to protect critical infrastructure
- Any work that involves hazardous waste or other legacy contaminants (lead, asbestos, PCB, VOCs, etc.) should be isolated, secured and protected from the elements. Maintenance of any critical barriers is essential.
- On-site material storage should not exceed regulatory limits.

## Tools and Equipment

- All tools and equipment should be locked in secure containers or in buildings
- Equipment should be removed from site or at the very least isolated, keys removed, locked out (where feasible) and made safe. Secure equipment in fenced in area when possible
- Follow all manufacturer recommendations for shutting down equipment
- All masts, booms, or other elevated equipment should be lowered as would be required by law

## Scaffolding

- Inspect and secure all scaffolding to prevent movement during inclement weather
- Close off incomplete scaffold sections
- Remove and store all unfixed access ladders
- Remove and store all material and tools from scaffold platforms

## Excavations

- Where feasible, backfill or cover excavations. Where not feasible, install substantial edge protection to prevent entry.
- Sloped or benched un-shored earth cuts shall be to an effective stable angle of repose of 45 degrees or flatter and stabilized to prevent erosion.
- Slope away soils from adjoining structures, parking lots, and public sidewalk, for proper drainage.
- Inspect shoring, underpinning, or other cave-in prevention equipment to ensure there is no obvious risk of the excavation collapsing or impact to adjacent structures
- Protect and label exposed underground utilities. Notify utilities of the status of work as required.

## Fire Prevention

- Do not block any entrances with equipment – maintain access for emergency response personnel & equipment



- Maintain and assure separation of oxygen and fuel gas in secured, upright, storage facilities with caps in place, regulators removed and values in the closed/off position
- Remove or isolate all potential heat or ignition sources such as portable heaters, electrical systems, cords, cord sets
- Return portable flammable liquid containers to appropriate storage cabinets and maintain on-site storage of flammable and combustible liquids and gases below approved quantity levels

### **Security and Public Interface**

- Check the site perimeter to ensure it is secured
- Remove computers and other valuable equipment from the site or put in secure storage
- Lock up all tools and equipment in containers and gang boxes
- Maintain essential utilities; non-essential utilities should be disconnected
- Ensure public sidewalks are maintained safely in accordance with federal, state and local governmental authorities, free of ice, snow, grease, debris, tripping hazards, etc.
- Keep all traffic control and protection in place unless directed by local DOT to remove
- Keep temporary lighting illuminated
- Use remote video monitoring and/or security patrols in high-risk areas
- Post emergency/after-hours contact information in conspicuous locations
- Consider third-party access requirements (utility, fire/EMS, code officials, etc.)
- Confirm that all required temporary or permanent egress is clear and unobstructed.
- Ensure that all required temporary or permanent exit signs and exit illumination remain operating/maintained prior to closure
- Lock up all entrance points and check all gates

- Consider using the buddy system with communication protocol for any essential personnel required to remain on site (security, critical equipment maintenance, etc.), depending on the size of the site
- Notify local emergency personnel (fire, police, rescue) that the site will be inactive and, if possible, provide a copy of the Emergency Action Plan and site maps, should they need to access a site in an emergency

## Documentation

Consider documenting the following:

- The order to close or postpone operations and the justification for the decision
- Shutdown duration
- A snapshot of the schedule and status of work at the time of shutdown
- Clear assessment of work in place (with photos) at the time of shutdown
- If there were prior project delays due to unrelated causes, preserve clear documentation of the time period associated with that delay
- All expenses incurred (clean-up costs, etc.) as a result of shutdown and events leading up to
- All time expended on COVID-19 related issues (who, what, where, when, etc.) including the nature of the work

Any shutdown procedures should incorporate a final site walk through in the lead up to the last day to ensure all considerations have been met. Where feasible and mandated by law, periodic inspections for critical equipment/infrastructure, maintenance and structures should continue.

### 6.5 Returning to “Normal”

Returning to a state of normalcy following implementation of a pandemic mitigation plan may require a stepped approach in order to confirm that any employees not showing symptoms of COVID-19 continue to be symptom free while the project gradually returns to normal status. The company should continue to follow CDC guidelines and relevant sections of this Guidance.

When the pandemic officially comes to an end, the ongoing risk of exposure should be managed. Employers should continue to emphasize staying home when sick, respiratory etiquette, and the use of hygiene by all employees. Additional suggestions include:



Document	Revision	Date
CS-H-04	2	July 30, 2020

- Routinely distribute information (via paycheck envelopes, tailgate talks, etc.) about relevant updates and reminders about what sanitation, hygiene, and distancing practices remain in effect.
- Posters should be placed in job trailers and other locations where employees are likely to see them.
- Employers should ensure that a sufficient supply of hand sanitizer, hand washing facilities, and PPE are maintained.
- Clearly communicate when face coverings and physical distancing is no longer required.
- Maintain communication methods and medical support.
- Conduct an After-Action Review to be better prepared for future infectious disease events with stakeholders soon after operations have returned to a more normal status. The review should center around four primary questions and take no more than a few hours to complete:
  - What was expected to happen?
  - What occurred?
  - What went well and why?
  - What can be improved upon and how?
- Develop a report and immediately begin implementing changes.

## 7.0 REFERENCES

- 7.1 Cybersecurity and Infrastructure Security Agency, Guidance on the Essential Critical Infrastructure Workforce, <https://www.cisa.gov/publication/guidance-essential-critical-infrastructure-workforce>).
- 7.2 US Environmental Protection Agency (EPA) “Disinfectants for use against SARS-CoV-2)” Available at: <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>
- 7.3 Summit Medical Group “Must-know COVID-19 vocabulary” Available at: <https://www.summitmedicalgroup.com/news/living-well/must-know-covid-19-vocabulary/>
- 7.4 Equal Employment Opportunity information page. [https://www.eeoc.gov/eeoc/newsroom/wysk/wysk\\_ada\\_rehabilitaion\\_act\\_coronavirus.cfm](https://www.eeoc.gov/eeoc/newsroom/wysk/wysk_ada_rehabilitaion_act_coronavirus.cfm)

- 7.5 CDC “COVID-19 Index page” available at [≤  
https://www.cdc.gov/coronavirus/2019-ncov/index.html](https://www.cdc.gov/coronavirus/2019-ncov/index.html)>
- 7.6 Center for Disease Control (CDC) “Implementing Safety Practices for Critical Infrastructure Employees Who May Have Had Exposure to a Person with Suspected or Confirmed COVID-19” Available at:  
<<https://www.cdc.gov/coronavirus/2019-ncov/community/critical-employees/implementing-safety-practices.html>>
- 7.7 American Chemistry Council approved virus disinfectant list.  
<https://www.americanchemistry.com/Novel-Coronavirus-Fighting-Products-List.pdf>
- 7.8 CDC Domestic Travel Advisory. <https://www.cdc.gov/coronavirus/2019-ncov/travelers/travel-in-the-us.html>
- 7.9 CDC’s guidance on how to make and use of cloth face coverings.  
<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/diy-cloth-face-coverings.html>
- 7.10 Health and Human Services information page for COVID-19
- 7.11 <https://www.hhs.gov/hipaa/for-professionals/special-topics/hipaa-covid19/index.html>
- 7.12 CDC guidance on appropriate self-quarantine.  
<https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/quarantine.html>
- 7.13 CDC guidance on appropriate self-isolation.  
<https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/isolation.html>
- 7.14 CDC guidance on isolation duration.  
<https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/isolation.html>





## 8.0 HISTORY OF REVISIONS

Revision	Date	Description
0	5/1/2020	Initial publication of this INGAA Construction Safety Consensus Guidelines document.
1	5/5/2020	General edits
2	7/30/20	Added testing addendum to describe types of tests, testing strategies, selection and administration of testing in accordance with new CDC Guidance.
		Updated Section 6.0 with new CDC Guidance under sub-section of response to Positive Cases
		Updated Section 6.0 with new CDC Guidance for returning to work after a positive test as well as new sections on symptom and test-based strategies for returning to work.
		Updated Section 6.0 with a new sub-part based on CDC Guidance for Subsequent COVID-19 Exposure During Quarantine/Isolation or Following Recovery.



## TESTING ADDENDUM

### Testing Basics

Testing is an important part of managing the risk of disease when elimination isn't an option and is particularly important for COVID-19 because even infected individuals may not exhibit symptoms but can still transmit disease to others. Regular testing allows us to quickly identify who is infected so that individuals may seek out treatment and isolate themselves to prevent potential outbreaks. Integrating COVID-19 testing on pipeline construction projects along with other robust infection control practices has the potential to:

- Reduce risk of the virus causing COVID-19 disease from entering or further spreading through a population of workers through early detection.
- Maximize operational capabilities by keeping employees healthy and preventing unnecessary removal of essential workers from the job site.
- Provide local communities and health departments with accurate information regarding the impact a project may have on the local transmission of COVID-19.

Testing, when combined with other layers of protection, can position employers to open, reopen or keep open operations while mitigating health hazards.

There are currently two main types of testing: viral and antibody tests.

- Viral (nucleic acid or antigen) testing detects active infection by checking samples from the respiratory system (such as nasal swabs or saliva). Viral testing typically uses polymerase chain reaction (PCR) for the detection of the COVID-19 virus.
- Antibody testing detects past infection and potential immunity through a blood sample using a Serologic assay for the detection of COVID-19 antibodies in the blood. The FDA does not recommend using antibody testing to test for active disease.

The quality of the tests and the information they provide vary widely by type and manufacturer. Tests can be one important component for understanding the extent to which distancing practices, masks, and other prevention techniques are effective.

### Administering Tests

Effective methods of administering tests will vary depending on the type of test. Recently, some saliva-based PCR tests have been approved for self-administration, but their availability or use is not widespread yet. However, most will require a trained clinician,



Document	Revision	Date
CS-H-04	2	July 30, 2020

nurse, pharmacist, or physician to effectively administer and an approved laboratory to generate results. The location where tests are administered should have an appropriate workspace, waste removal plan, and emergency action plans. Refer to CDC Guidance in the References section for additional information on when and how to implement these plans. Regardless of the test method, communication of results must be HIPAA compliant.

### Company Testing Programs

A company testing program should complement a robust infection prevention and control program. Occupational testing programs should be customized based on the number of employees, level of contact among workers, and the density and configuration of the workspace.

Most tests require a lab to review the results or it is recommended to supplement a “rapid result” with an additional test that is verified by a lab. Because of this delay in results (sometimes up to a week), companies should evaluate and establish protocols for the level of employee engagement/interaction at the workplace while their test results are pending.

Testing may be used to help understand the risk to a particular workforce and may be used to help design surveillance and contact tracing strategies. Further resources can be found on the CDC website (see References section).

### Test Sampling Methods

Important variables to consider for frequency of testing are proximity and duration of contact among employees and use of common spaces like kitchens, break rooms, and restrooms. These variables can be used to help determine likelihood of initial exposure to disease, how frequently to test, and where to allocate resources.

The CDC suggests categorizing workers into separate tiers:

- (Tier 1) those who might be pre-symptomatic, likely infectious, or who were in close contact with individuals known to have tested positive;
- (Tier 2) those scheduled to work at the same time as those who were exposed to an individual who tested positive, but who aren’t necessarily working in the same area; and
- (Tier 3) those who work in the same area but have not interacted with anyone who has tested positive.

## Testing Approaches

Three approaches or methodologies that can be used for testing include: “Routine Enhanced Screening” “High-Risk Surveillance”, and “For-Cause”. A combination of approaches is recommended to ensure various scenarios and testing needs are captured.

### Routine Enhanced Screening

Enhanced screening involves adding some level of testing to the already established screening protocols outlined in the main guidance document. In addition to the basic screening conducted, employers should consider baseline testing (using some form of viral tests) on new workers or those returning from an extended leave.

Enhanced screening can further augment the ability to detect asymptomatic or sub-clinical infections from entering a project population and is beneficial for situations where risks of transmission are higher, and consequences of infection may be more difficult to manage (such as remote projects or critical crews such as welders).

### High Risk Surveillance

High Risk Surveillance involves periodically testing a group of critical or high-risk workers with the goal of detecting individuals with asymptomatic or sub-clinical viral infections before widespread transmission to the rest of a population occurs. The following are examples of workers who should be considered for surveillance testing.

- Project-critical Teams/Rosters (e.g. pipe gang or firing line).
- Work groups for which Social Distancing is a particular challenge and thus must work consistently in close proximity to each other.
- Supervisory staffs or groups that have contact with a large cross-section of other teams.

### For Cause

For Cause testing involves testing individuals who have self-reported or present with signs and symptoms that may be consistent with COVID-19 viral infection or those who are not symptomatic but had contact with a positive case. The goal of this type of testing is to detect individuals with COVID-19 infection so they can be isolated from the rest of the population before widespread transmission. Individuals that self-report signs and symptoms should be isolated until their symptoms have subsided (refer to Section 6.2 of Interim Guidance for back-to-work advice). It is recommended that the company’s sick-



Document	Revision	Date
CS-H-04	2	July 30, 2020

leave policy addresses this or similar situations to ensure fair and consistent handling of potential or presumed COVID-19 cases in the workplace.

For Cause testing may also be prudent for individuals that have been in close contact with someone that has a confirmed case of COVID-19.

### Response to Positive Tests

Anyone who tests positive for COVID-19 should immediately isolate until they have exhibited:

- 24 hours with no fever without the use of fever reducing medications,
- symptom improvement, and
- at least 10 days since initial symptoms presented.

If an asymptomatic individual tests positive, isolation should last until ten days have passed since the test date. If an asymptomatic individual develops symptoms after testing positive, they should begin to follow the guidelines for symptomatic individuals. Always consult a medical professional when determining if an individual is ready to return to work.

Once a positive test is confirmed in a workspace, workplace contact tracing should be performed. Contact tracing is the process of collecting information about who has tested positive and their close contacts. Contact tracing allows us to inform individuals when they need to isolate or quarantine to prevent the spread of COVID-19. Refer to Section 6 of this Guidance for further information on Contact Tracing and further actions to be taken for a positive test result.

### Selecting a test

When selecting a specific COVID-19 test method consult the Harvard Center for Systems Biology (See Reference 14), which has an excellent resource to aggregate the different statistical measures for different types of FDA-approved test manufacturers. Viral testing has been the primary testing type and the FDA does not recommend using antibody testing to test for active disease. A brief summary of available tests is listed in the table below. More detailed information can be found on the FDA's Coronavirus Testing Basics website (See Reference Section). Tests differ in type of infection detected, length to obtain results, and accuracy.

## Test Type Summary

	MOLECULAR TEST	ANTIGEN TEST	ANTIBODY TEST
Also known as...	Diagnostic test, viral test, molecular test, nucleic acid amplification tests (NAAT), RT-PCR tests	Rapid diagnostic test*	Serological test, serology, blood test, serology test
How the sample is taken...	Nasal or throat swab (most tests) Saliva (a few tests)	Nasal or throat swab	Finger stick or blood draw
How long it takes to get results...	Same day (some locations) or up to a week	One hour or less	Same day (many locations) or 1-3 days
Is another test needed...	This test is typically highly accurate and usually does not need to be repeated.	Positive results are usually highly accurate but negative results may need to be confirmed with a molecular test.	Sometimes a second antibody test is needed for accurate results.
What it shows...	Diagnoses active coronavirus infection	Diagnoses active coronavirus infection	Shows if you've been infected by coronavirus in the past
What it can't do...	Show if you ever had COVID-19 or were infected with the coronavirus in the past	Definitively rule out active coronavirus infection. Antigen tests are more likely to miss an active coronavirus infection compared to molecular tests. Your health care provider may order a molecular test if your antigen test shows a negative result but you have symptoms of COVID-19.	Diagnose active coronavirus infection at the time of the test or show that you do not have COVID-19

\*Some molecular tests are also rapid tests.

It is recommended that all testing considerations are completed in conjunction with Human Resources department, the company Medical Department or service provider, and legal counsel. Teams should determine the number of individuals needed to be tested, select testing frequency, pre-determine how results will be interpreted, and pre-plan specific actions that will be taken based upon results. Resources, space, distancing practices, sanitation, hygiene, and other prevention techniques should be considered during planning.

## References

1. Communities, Schools, Workplaces, & Events. (2020). Retrieved 18 June 2020, from <https://www.cdc.gov/coronavirus/2019-ncov/community/worker-safety-support/hd-testing.html>
2. Contributor, S. (2020). After recovering from COVID-19, are you immune?. Retrieved 18 June 2020, from <https://www.livescience.com/covid-19-immunity.html>
3. CDC releases consolidated COVID-19 testing recommendations. (2020, June 13). Retrieved June 17, 2020, from <https://www.cdc.gov/media/releases/2020/s0613-covid19-testing-recommendations.html>
4. Center for Disease Control and Prevention. (2019, December 16). To Test or Not to Test? Retrieved June 17, 2020, from [https://www.cdc.gov/clia/docs/waived-tests/15\\_255581-test-or-not-test-booklet.pdf](https://www.cdc.gov/clia/docs/waived-tests/15_255581-test-or-not-test-booklet.pdf)
5. Communities, Schools, Workplaces, & Events. (2020). Retrieved 18 June 2020, from <https://www.cdc.gov/coronavirus/2019-ncov/community/worker-safety-support/hd-testing.html>
6. Coronavirus Disease 2019 (COVID-19) - Interim Guidance for Businesses and Employers. (2020). Retrieved 18 June 2020, from <https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-business-response.html>
7. Coronavirus Testing Basics. (2020). Retrieved 18 June 2020, from <https://www.fda.gov/consumers/consumer-updates/coronavirus-testing-basics>
8. Information for Laboratories about Coronavirus (COVID-19). (2020). Retrieved 18 June 2020, from [https://www.cdc.gov/coronavirus/2019-ncov/lab/resources/antibody-tests-guidelines.html#anchor\\_1590264247573](https://www.cdc.gov/coronavirus/2019-ncov/lab/resources/antibody-tests-guidelines.html#anchor_1590264247573)
9. Quarantine and Isolation. (2020, May 06). Retrieved June 18, 2020, from <https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/quarantine-isolation.html>
10. Safety and Health Topics | COVID-19 - Control and Prevention | Occupational Safety and Health Administration. (2020). Retrieved 18 June 2020, from <https://www.osha.gov/SLTC/covid-19/controlprevention.html>
11. Sanchez, E. (2020). COVID-19 science: Why testing is so important - Health Metrics. Retrieved 17 June 2020, from <https://healthmetrics.heart.org/covid-19-science-why-testing-is-so-important/>
12. Udugama, B., Kadhiresan, P., Kozlowski, H. N., Malekjahani, A., Osborne, M., Li, V., Chen, H., Mubareka, S., Gubbay, J. B., & Chan, W. (2020). Diagnosing COVID-19: The Disease and Tools for Detection. *ACS nano*, 14(4), 3822–3835. <https://doi.org/10.1021/acsnano.0c02624>
13. U.S. Food & Drug Administration (2020, June 10). Coronavirus Testing Basics. Retrieved June 18, 2020, from <https://www.fda.gov/consumers/consumer-updates/coronavirus-testing-basics>
14. Weissleder, R., Lee, H., & Pittet, M. (2020, June 15). COVID-19 Diagnostics In Context. Retrieved June 18, 2020, from <https://csb.mgh.harvard.edu/covid>