Table of Contents

I. Purpose
II. Definitions
III. Scope
IV. Introduction
V. Regulatory Guidance
VI. Corporate Planning & Management
VII. Site Planning & Management
VIII. Appendix A: Resources
IX. Appendix B: Sample Site screening questionnaire
X. Appendix C: Travel Restriction Considerations
XI. Appendix D: Sample Considerations
Purpose:
The purpose of this document is to provide an enhanced health and safety guidance procedure for the development of wind energy employers during pandemics, specifically COVID-19. This guidance provides general preparation and outlines background information on pandemics, common business impacts and planning assumptions, monitoring processes and general response guidelines.

Definitions:

- **The Centers for Disease Control and Prevention (CDC)** mission is to works 24/7 to protect America from health, safety and security threats, both foreign and in the U.S. Whether diseases start at home or abroad, are chronic or acute, curable or preventable, human error or deliberate attack, CDC fights disease and supports communities and citizens to do the same.

- **COVID-19**, as defined by the CDC, is caused by a new coronavirus. Coronaviruses are a large family of viruses that are common in people and many different species of animals, including camels, cattle, cats, and bats. Rarely, animal coronaviruses can infect people and then spread between people such as with MERS-CoV, SARS-CoV, and now with this new virus (named SARS-CoV-2).

- **The Department of Homeland Security Cyber-Infrastructure Security Agency (CISA)** is responsible for protecting the Nation’s critical infrastructure from physical and cyber threats. This mission requires effective coordination and collaboration among a broad spectrum of government and private sector organizations.

- **The Occupational Safety and Health Administration (OSHA)**, with the **Occupational Safety and Health Act of 1970**, Congress created the **Occupational Safety and Health Administration (OSHA)** to ensure safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education and assistance.

- **Pandemic** is defined as an epidemic of infectious disease that is spreading through human populations across a large region. A pandemic is a sudden disease outbreak that covers large portions of a country, continent or the world. Pandemics have the potential to impact a large percentage of the population, and in an interconnected society, create significant impacts to both business operations and personal lives. The Department of Homeland Security defines pandemics as “a global epidemic of an infectious disease.” DHS’s Strategic National Risk Assessment identified human pandemic outbreak as one of “the types of incidents that pose the greatest threat to the Nation’s homeland security.”

- **The World Health Organization’s (WHO)** primary role is to direct and coordinate international health within the United Nations system. WHO main areas of work are health systems; health through the life-course; noncommunicable and communicable diseases; preparedness, surveillance and response; and corporate services.

Scope:
The scope of this document covers minimum guidelines and recommended process for environmental, health, and safety (EHS) programs considerations during pandemics, specifically COVID-19.

Introduction:
The wind energy industry employs approximately 114,000 workers across the country representing various industry sectors including: operations, maintenance, construction, transportation, logistics, and manufacturing. Therefore, it is critical that wind energy companies are aware of and plan for the potential threats that could directly or indirectly impact their employees and operations.
This document will assist wind energy employers in determining minimum policy and program requirements to ensure the health and safety of their employees, thereby helping maintain essential business functions during a pandemic. This document is not meant to be comprehensive; it does provide a roadmap for plan development that includes considerations pertinent to the wind energy industry.

According to the World Health Organization (WHO) COVID-19 is a pandemic. On March 13, 2020, the President of the United States declared a National Emergency for the COVID-19 outbreak. Several States have declared States of Emergencies and “Shelter in Place” and “Stay at Home” policies, travel restrictions, and other policies to reduce the spread of COVID-19.

Regulatory Guidance:
The American Wind Energy Association (AWEA) cannot determine or prescribe how AWEA members or wind energy industry employers should evaluate their regulatory and/or legislative compliance obligations. Each employer must make their own legislative and regulatory compliance determinations for the safety and health of their workers depending on their worksites. Employers are encouraged to coordinate with federal, state, and local officials for regulatory compliance and provide accurate information to establish and guide appropriate responses and programs.

Essential and Non-Essential Business
The Department of Homeland Security’s Cybersecurity and Infrastructure Security Agency (CISA) issued a memorandum on identification of essential critical infrastructure workers during the COVID-19 response. This guidance identifies critical industries recommended to continue their usual work operations in the midst of the coronavirus pandemic. This includes the Energy sector and specifically:

- Workers who maintain, ensure, or restore the generation, transmission, and distribution of electric power, including call centers, utility workers, reliability engineers and fleet maintenance technicians

Critical manufacturing is defined as follows:

- Workers necessary for the manufacturing of materials and products needed for medical supply chains, transportation, energy, communications, food and agriculture, chemical manufacturing, nuclear facilities, the operation of dams, water and wastewater treatment, emergency services, and the defense industrial base.

While the Department of Homeland Security Cyber-Infrastructure Security Agency (CISA) provides guidance, each state or locality establishes its own restrictions, which may or may not incorporate the DHS guidance. CISA have provided access letters for travel to critical infrastructure sectors. Each state has issued their own “stay in home” and/or “shelter in place” policies with identified “essential businesses.” Tracking for state policies can be found: https://www.multistate.us/pages/covid-19-policy-tracker.

The Centers for Disease Control and Prevention
The CDC developed a “COVID-19: Interim Guidance for Businesses and Employers,” for the purposes to assist the prevention of workplace exposure to COVID-19 in non-healthcare settings. This guidance
document should provide employers a helpful resource to decrease the spread of COVID-19 and lower the impact in their workplace.

**Occupational Safety and Health Administration**

The Occupational Safety and Health Act of 1970 (OSHA Act) requires employers provide a safe and healthful workplace. The OSH Act requires employers comply with safety and health standards and regulations promulgated by OSHA or by an OSHA-approved state plan. OSHA developed a “Guidance on Preparing Workplace for COVID-19,” to assist employers in developing their pandemic programs as it relates to COVID-19.

While **OSHA regulations** are applicable, there are no specific OSHA standards covering the COVID-19 pandemic event. OSHA regulations that would be applicable to the prevention of occupational exposure for COVID-19 would include:

- **General Duty Clause:** Section 5(a)(1) of the OSHA Act (29 USC 654(a)(1)):
  
  a) Each employer:
  
  1. Shall furnish to each of his employees' employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;
  
  2. Shall comply with occupational safety and health standards promulgated under this Act.

  b) Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act, which are applicable to his own actions and conduct.

- **Personal Protective Equipment (PPE) standard** (29 CFR1910 Subpart I): equipment worn to minimize exposure to hazards that cause serious workplace injuries and illnesses. OSHA issued additional guidance on enforcement for respiratory protection and the N95 shortage due to COVID-19 and guidance for use of respiratory protection certified under standards or other countries.

- **General Environmental Controls** (Sanitation)

- **Recordkeeping:** OSHA issued guidance that limits when COVID-19 can be a recordable illness. OSHA has narrowed the guidance to medically confirmed cases that are work related as defined by 29 CFR 1904.5 and the case involves one or more of the general recording criteria defined in 29 CFR 1904.7.

- **Good Faith Efforts:** OSHA issued guidance “Discretion in Enforcement when Considering an Employer's Good Faith Efforts During the Coronavirus Disease 2019 (COVID-19) Pandemic.”

**Corporate Planning and Management:**

Pandemics and infectious disease plans should be developed for all business operations. The plan should identify essential stakeholders, such as: medical, occupational health and safety, human resources, emergency planner, supply chain, business unit leader, management, federal/state agency, and local emergency representatives. This is not an exhaustive list of representatives. It is critical to incorporate a communication plan and establish a process to appropriately ensure a stockpile of appropriate basic needs, water, PPE, etc.
Each organization will need to determine day to day ongoing operations, such as business continuity plans. Determination on operational aspects impacting the business unit should consider operational things such as: emergency or downed tower services only, providing routine services, travel restrictions and levels, and communication to both internal and external stakeholders.

Establish and identify employees that can telework and/or continue to work alternate work procedures and schedules.

**General Precaution:**
Employers should plan for a comprehensive process and plan for pandemics and infectious diseases that involves both internal and external stakeholders. The plan should identify and develop a process to mitigate, prepare for, respond to, and recover from a pandemic event.

By identifying and bringing together stakeholders, your organization should be able to develop and implement a holistic pandemic program. Please note that each employer, business unit and region will have its own unique challenges.

Employers should review and revise your program on a periodic basis such as, annually, after significant changes, and/or at the onset of a potential pandemic.

As OSHA notes, “[a]lthough the ongoing outbreak likely resulted originally from people who were exposed to infected animals, COVID-19, like other coronaviruses, can spread between people. Infected people can spread COVID-19 through their respiratory secretions, especially when they cough or sneeze. According to the CDC, spread from person-to-person is most likely among close contacts (about 6 feet). Person-to-person spread is thought to occur mainly via respiratory droplets produced when an infected person coughs or sneezes, similar to how influenza and other respiratory pathogens spread. These droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs.

There is much more to learn about the transmissibility, severity, and other features associated with COVID-19, and investigations are ongoing.

Several components that should be considered for any holistic Infectious Disease Plan:

- **Prevention Program**
  - Ensure that the program is scalable and adaptable.
  - Plan for mitigation strategy.
  - Provide a rapid response platform.

- **Operational Strategy**
  - Provide alternative work schedules.
  - Provide process and procedures for essential workers.
  - Access to Facilities and Projects.
  - Personal Protective Equipment (PPE).

- **Health and Medical Plan**
  - Monitoring Symptoms.

- **Training**
Prevention:
Employers should ensure there is a preparedness and prevention program in place. Materials and information can be found for developing a preparedness program on the CDC website (https://www.cdc.gov/flu/pandemic-resources/planning-preparedness/index.htm).

According to the CDC, for prevention of COVID-19, the appropriate measures to prevent common respiratory infections are:

- **Reduce spread of the virus:**
  - Clean your hands often with soap and warm water for at least 20 seconds. In the event that soap, and water are not available, use of alcohol based hand sanitizer with at least 60-95% alcohol by covering all surfaces of your hands and rub them together until they are dry.
  - Avoid touching your face, specifically your eyes, nose, and mouth with unwashed hand.
- **Cover your mouth and nose when around others (either with appropriate PPE if available or a cloth face cover):**
  - Cover coughs and sneezes.
  - Dispose of tissues in the trash once used;
- **Practice social distancing.**
- **Clean and disinfect:**
  - Pay special attention to hygiene of surfaces and work areas (desk, mouse, keyboard, laptop; phones; etc.);

**Procedures for face-to-face meetings**
- Minimize face-to-face meetings and conversations. Establish telework or remote work policy if possible.
- Establish appropriate protocol for meeting with externals. Protocol should include providing a completed survey for each external (see Appendix B).

**Cleaning/decontamination schedule**
- Establish appropriate cleaning and/or decontamination process.
  - Considerations:
    - Public facilities such as office area, vehicles, elevator, hallways, shower room, toilets, locker rooms, public areas such as desks, meeting rooms, office area, etc. should be done daily.
    - Public touch areas such as door handles, sinks in production area, badge reader, entry turnstile, keyboards etc. should be done daily.
    - Central air conditioning outlet weekly.

Employers should ensure employees are aware of communication plans and procedures for employees who shows symptoms or have been exposed to COVID-19.
- The CDC recommend that any employee who shows symptoms of COVID-19 to stay home.
- COVID-19 symptom checkers are available on several different websites and informational resources. https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/steps-when-sick.html#
- Establish a timeframe for monitoring symptoms and stay at home policies, please work with the Human Resources professionals to ensure that all appropriate laws and legal requirements are met.
- A process and procedure should be established for employees who show symptoms while at work.
Social Distancing:
All employees should practice social (physical) distancing. As outlined by the CDC, avoid physical contact, such as handshakes, hugging, etc. Individuals should maintain the minimum 6-foot distance from others, this includes working within a wind turbine.

Training:
Employers should establish process and procedures for training. All education and training programs should be performed online or virtually, if able. Waivers for recertifications should be given for the duration of the pandemic.

Travel Restrictions
During a pandemic, organizations should consider establishing travel restrictions. Considerations for the purposes of COVID-19 (see Appendix C):
- Establish essential domestic business air travel for essential in-person business operations.
  - Restrict business travel as advised by public sources.
- Appropriate policy should be developed for domestic and international business travel. For COVID-19 non-essential business travel and international travel should be prohibited.
  - Protocols should be established for personal travel such as reporting to direct managers or HR.
  - Enact self-isolation practices for employees returning from impacted areas.
  - Assess impacts to transportation of company equipment or supplies and address as required.

Site Planning and Management:
Responsibility:
Each site should define a full time coordinator of the health emergency for COVID-19 at site level, who should be in charge of ensuring the control measurements are in place for daily restart of work and be the primary escalation point to local HSE and local HSE officer in the country, should any person detect symptoms or raise concerns about possible contagion.

It is everyone’s responsibility to ensure that any individual accessing locations:
- Avoid physical contact, such as shaking hands or hugging while greeting visitors, or sharing tools while working.
- Always ensure the usage of appropriate personal protective equipment (PPE).
  - Masks and disinfectant should also be available.
- Practice social distancing and establish process for face-to-face meeting (see prevention section).
- Ensuring appropriate hygienic practices.

Cleaning/decontamination schedule
- Establish appropriate cleaning and/or decontamination process.
  - Considerations:
    - Public facilities such as office area, vehicles, elevator, hallways, shower room, toilets, locker rooms, public areas such as desks, meeting rooms, office area, etc. should be done daily.
    - Public touch areas such as door handles, sinks in production area, badge reader, entry turnstile, keyboards etc. should be done daily.
Site admission:
Consider establishing procedures for all employees and visitors entering the site/facility, which should include screening for symptoms and travel history (see Appendix B for a sample symptom survey).
Considerations for establishing appropriate protocol:
- Travel history (see Appendix C)
- Being in contact with confirmed or suspected novel coronavirus-19 patient.
- Suffered from symptoms compatible with a possible COVID-19 case.

Site Closure:
Considerations for the necessity of a site closure should an employee become infected with the COVID-19 virus at a jobsite, the following protocol should be established:
- The project manager at the project site should immediately contact the appropriate designated personnel.
- The manager should communicate with employees the appropriate policy, procedure, and expectations.
- During the 14-calendar day period, it is highly recommended all personnel working at the project site be tested for the COVID-19 virus simply out of an abundance of precaution.
- Designated personnel should confirm all equipment, materials and other valuables are properly stored for the 14 calendar days.
- Security should be implemented 24/7 during the 14 calendar days to mitigate theft.
- Designated personnel (if applicable) should provide routine visits to the site to ensure the security if necessary.
- The necessity for designated personnel to remain on site or on stand-by to receive any deliveries, material or equipment shipments which are critical to the project.
- Employers should consider establishing routine disinfecting program, however, prior to re-opening:
  - According to WHO “[i]t is not certain how long the virus that causes COVID-19 survives on surfaces, but it seems to behave like other coronaviruses. Studies suggest that coronaviruses (including preliminary information on the COVID-19 virus) may persist on surfaces for a few hours or up to several days. This may vary under different conditions (e.g. type of surface, temperature or humidity of the environment).
    If you think a surface may be infected, clean it with simple disinfectant to kill the virus and protect yourself and others. Clean your hands with an alcohol-based hand rub or wash them with soap and water. Avoid touching your eyes, mouth, or nose.”
  - A professional cleaning company should perform a complete disinfection of the site during the 14-calendar day period to ensure all working surfaces have been cleaned and disinfected.
  - The cleaning company should also perform a complete disinfecting wipe down of the interior surfaces of all equipment, control panels, doors, vehicles, and all identified spaces.

Note: The CDC established updated interim guidance as it pertains to critical infrastructure workers who may have been exposed a person with suspected or confirmed case of COVID-19.
As noted by the CDC: Critical Infrastructure workers who have had an exposure but remain asymptomatic should adhere to the following practices prior to and during their work shift:

- **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 barrier:** The employee should always wear a facial barrier for 14 consecutive days after last exposure to the virus. 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 workspaces:** Clean and disinfect all areas such as offices, bathrooms, common areas, shared equipment routinely.
Appendix A

Resources:

- Center for Disease Control (CDC): [https://www.cdc.gov/](https://www.cdc.gov/)
  - Critical Infrastructures Workers: [updated interim guidance](https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/steps-when-sick.html#)
- Critical Infrastructure Security Agency (CISA):
- Occupational Safety and Health Administration:
  - Guidance on Preparing Workplace for COVID-19
  - PPE: [enforcement for respiratory protection and the N95 shortage due to COVID-19](https://www.osha.gov/SLTC/covid-19/index.html)
  - PPE: [guidance for use of respiratory protection certified under standards or other countries](https://www.osha.gov/SLTC/covid-19/index.html)
- Overseas Advisory Council (OSAC): [https://www.osac.gov/](https://www.osac.gov/)
- Apple and CDC developed App: [https://www.apple.com/covid19](https://www.apple.com/covid19)
Appendix B
Sample Site screening questionnaire

Name: __________________________________    Date: ____________________

Employer: __________________________________________________________

1. Have you traveled internationally in the last 14 days? Yes/No
   List all the Countries you have traveled to:

2. Have you traveled via air within the US in the last 14 days? Yes/No
   List all States you have traveled to:
   Do you have or have you had a fever in the last 14 days? Yes/No
   Do you have or have you had difficulty breathing in last 14 days? Yes/No
   Do you have or have you had a persistent cough in last 14 days? Yes/No
   Do you have or have you had any gastro/intestinal issues in last 14 days? Yes/No
   If Yes, please provide details:

3. Have you had close contact with or cared for someone who had a fever, difficulty breathing, and/or
cough within the last 14 days? Yes/No.
   If Yes, please provide details:

4. Have you been to any event with a large gathering (50 people or more) in the last 14 days? Yes/No
   If Yes, please provide more information.

I, _________________________ understand and confirm that the information above is correct and
accurate. I will also report any signs of illness immediately to the site manager.

(Employee Name-Print): _________________________
______________________________________________ (Signature)

If any of the questions listed above have been answered positive, this completed form shall be
forwarded to your Senior Management and Director of Human Resources for clearance to site.
Appendix C
Travel Restirction Considerations

- Travel – Centers for Disease Control and Prevention (CDC) identified areas (https://www.cdc.gov/coronavirus/2019-ncov/travelers/map-and-travel-notices.html) during the previous minimum 14 days.
Appendix D
Sample Considerations

Identify minimum staffing levels for essential business functions including succession plan for each position (3+ deep)
Establish work rotation/schedule
• Identify critical workers for vaccinations, if available.
• Consider sequestering or voluntary isolation of personnel associated with critical processes.
• Suspend face-to-face meetings between senior management.
• Consider activation of alternate office site locations.
• Test redundancy/capability of back-up systems to ensure readiness.
• Place employees in resource pool (cross-trained) on standby status.
• Determine if resource pool employees’ protective actions are warranted.
• Communicate report-to-work expectations for any employees in stand-by mode.
• Review availability and stocking levels of any critical equipment or supplies.

Identify and defer discretionary work, can it be postponed?

Sample response plan
Per your Pandemic Response Plan, inform your manager immediately if you show signs or symptoms of the COVID-19 virus.
• If you suspect you or any member of your household may have COVID-19, please contact your physician/telemedicine provider by phone for guidance.
• Any suspect or confirmed COVID-19 illness case must be reported to Human Resources.
• If an employee, contractor, or visitor who was on site tested positive for COVID-19, consult with HR, HSE, and management to communicate with onsite customers, contractors, and visitors.
• In the event of a confirmed COVID-19 case disinfect site and location closure for limited time.
• Use appropriate PPE (gloves, safety glasses with side shields).
• Contact HSE for guidance on disinfect and disposal tasks.
• Consider potential quarantine timeline per HSE/HR.
• Place signage on doors to turn away solicitors.
• Suspend routine cleaning and delivery services.
• Conduct any meetings via video conference.
• Consider limited resource prioritization of workload.
• Work with onsite customer representative to implement the following restricted work schedule.
• Troubleshoot turbines with alarms that threaten continued operation (by Monitoring Center if possible).

Stay at home policy
Stay home when you are ill or show signs of the symptoms listed above.
• Employees who have symptoms of acute respiratory illness are recommended to stay home and not come to work until they are free of fever (100.4° F [37.8° C] or greater using an oral thermometer), signs of a fever, and any other symptoms for at least 24 hours, without the use of fever-reducing or
other symptom-altering medicines (e.g. cough suppressants). Employees should notify their supervisor and stay home if they are sick.

- Employees who appear to have acute respiratory illness symptoms (i.e. cough, shortness of breath) upon arrival to work or become sick during the day should be separated from other employees and be sent home immediately. Sick employees should cover their noses and mouths with a tissue when coughing or sneezing (or an elbow or shoulder if no tissue is available).
- Early information out of China, where COVID-19 first started, shows that some people are at higher risk of getting very sick from this illness:
  o Older adults, with risk increasing by age.
  o People who have serious chronic medical conditions like:
    o Heart disease
    o Diabetes
    o Lung disease

Social Distancing
Practice social distancing and avoid large gatherings or personal contact greetings

- Practice stretch and flex in large open areas or outside of the building if weather permits allowing 6’ between team members.
- One employee per vehicle. Encourage employees drive themselves to site, do not carpool.
- Encourage video conferencing versus business meetings.
- Offer remote work arrangements.
- Supply hand sanitizers, cleaning supplies, and tissue to all personnel.
- Discourage employees from using other employee’s phones, desks, offices, or other work tools and equipment, when possible.
- Institute additional, enhanced cleaning protocols.
- Limit non-essential travel and prohibit international business travel.
- Communicate preventative measures and provide training material for health guidance and good hygiene.
- Identify a backup location the monitoring center should the office be closed or compromised.
- Identify a backup communication method for the company should cellular towers exceed call capacity or experience service interruptions.
- Advise employees to notify site management if they have recently traveled to an area in the US or internationally with widespread illness from COVID-19 or came in close contact with a person confirmed to have COVID-19 even when asymptomatic.
- Consider a precautionary self-quarantine for that employee based on a time period provided by the CDC.
- Work with building owners to ensure high efficiency air filters are installed on the HVAC units and exchanged regularly. Increase HVAC air flow if possible.
- Provide www.cdc.gov/COVID19 further updates and information.

Schedules and Alternative Schedules

- Shift plan (which has been devised by Regional Management and Site/Department Management in advance) will be implemented per location.
- Schedules to be adjusted to accommodate personnel accordingly and keep the location as functional as possible. For Example: Staggered shifts
• Ensure minimum 30-minute transition time between shift arrival & departure.
• Continue normal prioritization of work
• All personnel who can work remotely will continue and communicate with management on a scheduled basis.
• Continue to utilize preparation phase information, CDC guidelines and limitations.
• Limit outside visitors and contractors to sites to essential for business only.
• Ensure all visitors and contractors complete the Visitor Questionnaire (see Appendix B).
• Per your Pandemic Response Plan, request all personnel to communicate if COVID-19 symptoms are present near windfarm or location.
• If there is an impact to any employee consult with HR, HSE and management to work with onsite customers.
• Consider disinfecting site and location closure for limited time.
• Consider suspension of cleaning/ delivery services for limited time.
• Review impact to location activities until location can be back up to full potential.
• Work with onsite customer representative to implement the following limited work schedule.
• Implement restricted resource prioritization of workload.
• Troubleshoot down turbines - repair those with parts on site.
• Troubleshoot turbines with alarms that threaten continued operation (by Monitoring Center if possible).
• Consider and monitor of disease – next wave.

Training
• Climb training – current hold or training with instructor (confirmed no infection – no COVID-19) and student (also confirmed no infection) and a mannequin. Practice social distancing for rest of trainees.
• First aid – no mouth to mouth – all other precautions.