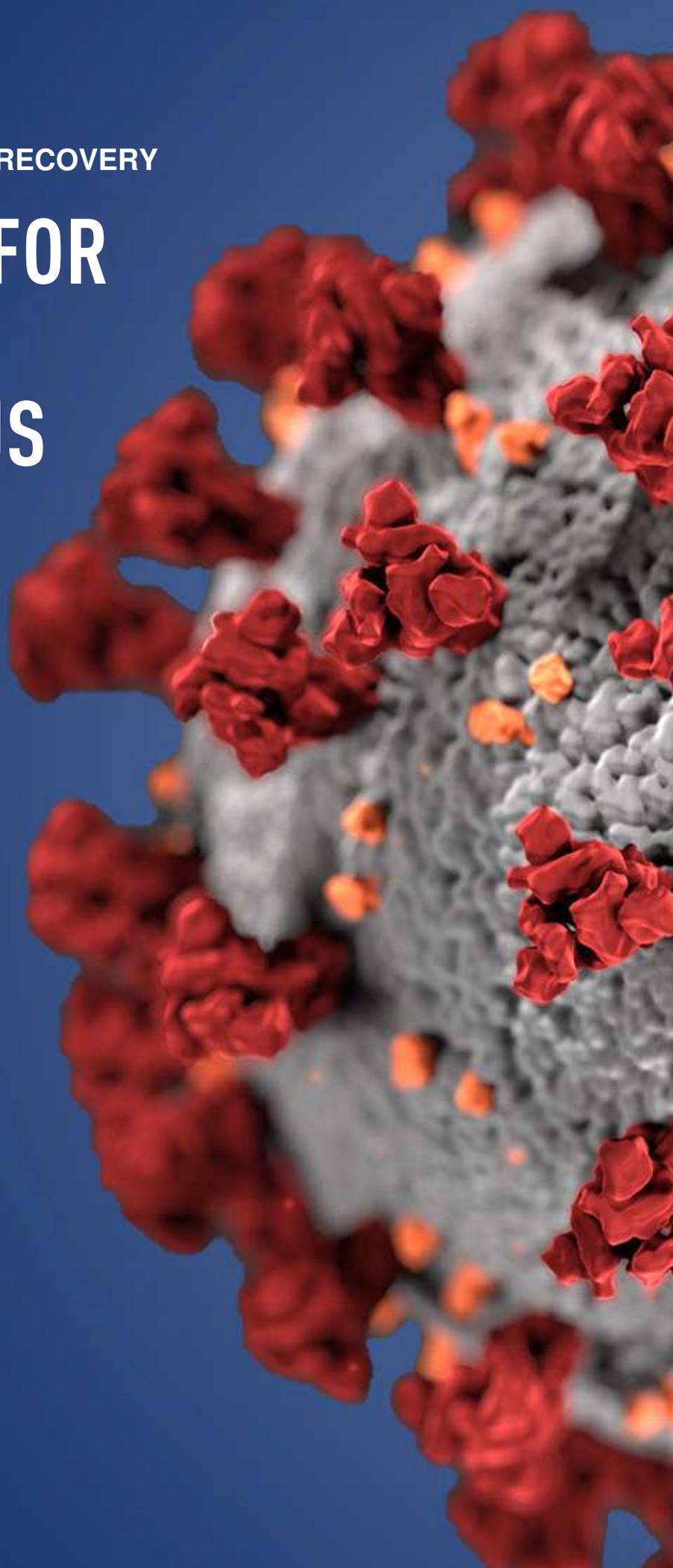


PEG SERVICES | DISASTER RECOVERY

# GUIDELINES FOR COVID-19 CORONAVIRUS CLEANING



**DISASTER  
RECOVERY  
SERVICES**

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# Protection Against Viral Outbreaks

## PEG IS A NATIONAL LEADER IN DECONTAMINATION AND DISINFECTION

COVID-19, commonly known as coronavirus, has been declared a public health emergency as it continues to spread nationally, raising fears over contagion and confusion over appropriate containment strategies. Leveraging more than thirty years of experience developing best-practice decontamination and disinfection protocols, PEG has assembled a COVID-19 Response Team to assist you in planning for and deploying effective protection against this viral threat.

PEG Virus Response Team (VRT) has extensive experience decontaminating facilities and contents exposed to Ebola, norovirus, MRSA and other viral contagion such as COVID-19. The team is ready to be deployed to your site immediately to mount the most appropriate response for precautionary, potential exposure or confirmed contamination.

PEG is armed with state-of-the-art equipment such as thermal imaging, vaporized hydrogen peroxide, ultraviolet light and EPA-registered disinfecting agents proven effective against various strains of coronavirus. Our full-service approach to biohazard decontamination fully complies with local, national and international regulations.

Every site presents unique challenges, exposure scenarios and operational complexities. Each decontamination response must protect the health of employees, customers, communities and the enterprise itself. PEG customized treatments are designed to address each facility's characteristics and to minimize the impact to occupants and operations.

As the nation's largest family-owned disaster recovery firm, PEG combines the agility and personal touch of a family-owned business with the reach and capabilities of an industry leader. Since 1989, PEG has made it our mission to help our clients recover from the most devastating natural and man-made disasters. We care about our customers, vendors, employees, and community, and strive to always deliver more than expected and help ensure safe conditions for everyone.

*“PEG is a science-based restoration company. They employ the latest technologies based on science and demonstrated efficacy. They also employ talented technicians who are trained and certified to safely accomplish the assigned missions. This is why I have been pleased to have had the opportunity to consult with PEG on complex and sensitive projects such as the control of hospital-acquired infections, decontamination of Ebola-contaminated equipment and the institutional remediation of both microbiological and chemical contaminated facilities.”*

- Richard L. Wade, Ph.D., Master of Public Health



# COVID-19 Overview

## WHAT IS IT?

The Centers for Disease Control (CDC) is responding to an outbreak of respiratory disease caused by a novel (new) coronavirus that was first detected in China and which has now been detected in almost 90 locations internationally, including in the United States. The virus has been named "SARS-CoV-2," and the disease it causes has been named "coronavirus disease 2019" (abbreviated "COVID-19").

Coronaviruses are a large family of viruses that are common in people and many other 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.

The SARS-CoV-2 virus is a betacoronavirus, like MERS-CoV and SARS-CoV. All three of these viruses have their origins in bats. The genetic sequencing of the SARS-CoV-2 virus in U.S. patients are similar to the one that China initially posted, suggesting a likely single, recent emergence of this virus from an animal reservoir.

## CURRENT STATE OF THE OUTBREAK

On January 30, 2020, the International Health Regulations Emergency Committee of the World Health Organization declared the outbreak a "public health emergency of international concern."

As of the issuing of this document there are 100,000 confirmed cases of COVID-19 globally across 76 countries, with 3,200 deaths reported, the majority of them in China. In the United States, 150 cases have been confirmed across 17 states, with 11 deaths reported, and the numbers are rising. The death rate for the virus is currently reported at 2%, but as more cases are reported, and as testing for the virus expands, this number is expected to decrease.

## WHO IS MOST AFFECTED?

While the complete clinical picture of COVID-19 is not fully known, reported illnesses have ranged from very mild (including some with no reported symptoms) to severe, including illness resulting in death. While information so far suggests that most COVID-19 illness is mild, a report out of China suggests serious illness occurs in 16% of cases. Older people and people of all ages with severe underlying health conditions, such as heart disease, lung disease and diabetes are at greater risk. In addition, people with compromised immune systems, because they are undergoing medical treatments, such as chemotherapy and taking immunosuppressant drugs may also be at greater risk.

## COVID-19 VS. OTHER VIRUSES

To keep this outbreak in perspective, seasonal influenza is far more potent than coronavirus, with the flu having killed 16,000 Americans this season alone. While COVID-19 is a betacoronavirus like MERS-CoV and SARS-CoV, it is far more sensitive, and therefore much easier to kill. Because of this, the death rate for COVID-19 is significantly lower, and it is less infectious than other common viruses.

Despite this, because COVID-19 is a new virus, there is still much we don't know, including incubation period, period of contagion, and the degree to which it is spread through contact with infected surfaces.

## HOW COVID-19 SPREADS

**Person-to-person contact** is believed to be the primary mode in which the disease is spread. It occurs when people come in close contact with an infected person (within six feet or less) and inhale/ingest respiratory droplets produced through coughs and sneezes.

**Spread from contact with infected surfaces or objects** is also possible when someone touches something that has been infected with respiratory droplets and then touches their own mouth, nose or possibly their eyes.

Our current understanding is that COVID-19 can survive on hard surfaces from anywhere between 9 hours and 4-5 days, putting anyone who comes in contact with it at risk of contracting and spreading the infection.

## YOUR RESPONSIBILITY AS A BUILDING OPERATOR

To help contain the spread COVID-19 and its potential to grow into a pandemic and economic disaster, owners and operators of commercial buildings have the responsibility to take appropriate precautionary measures and to mount an effective response if you believe or know your building has been contaminated. The PEG COVID-19 Response Team has developed three levels of service.

## RELATIVE INFECTIVITY OF COVID 19

On a scale from 1 to 10, 1 being the lowest infectivity rate to 10 being the highest infectivity rate, here's how the viruses compare.

### MEASLES



### SEASONAL FLU



### CORONAVIRUS



(Coronavirus 2019. National Center for immunology and respiratory diseases, March 4, 2020)

## SURFACES



**9 HOURS → 4 TO 5 DAYS**

The Virus can survive on hard surfaces for anywhere between 9 hours and 4 to 5 days

## HOW IT SPREADS



### INFECTED SURFACES

Touching a surface or object that has the virus on it



### WASH

The CDC recommends frequent handwashing and avoiding touching your mouth, nose or eyes



### COUGH

Respiratory droplets produced when an infected person coughs or sneezes

# PEG COVID-19 Response: Three Levels of Protection

## LEVEL ONE: PRECAUTIONARY

Level one protection is for businesses with no known contamination seeking to maintain safe and sanitary environments for customers and employees. Daily or twice-daily disinfection is conducted by PEG team of trained and experienced biohazard cleanup technicians, using EPA-registered chlorine or peroxide-based cleaners and proper disposal of waste. Treatments can be performed during off-hours to avoid business interruption.

## LEVEL TWO: POSSIBLE EXPOSURE

Business or public spaces with suspected exposure (an infected person inside the building) require detailed 10-foot down disinfection and deep-clean decontamination performed by PEG team of EHS (environment, health and safety)-certified biohazard cleanup technicians specially qualified for respiratory cleanup.

## LEVEL THREE: CONFIRMED EXPOSURE

Businesses or public spaces with confirmed exposure to COVID-19 require customized protocols specific to the site to ensure thorough and proper decontamination. PEG will work with client teams to develop a custom plan that protects the health of their employees, customers and communities and mitigates impact to the operations of the enterprise.

All levels employ the following methods and technologies as appropriate:

- EPA-registered chlorine or peroxide-based cleaners
- Ultraviolet (UV) light disinfection
- Vaporized Hydrogen Peroxide (VHP) mist fogger
- Donning and doffing of personal protection equipment (PPE), including respiratory protection
- Disposal of waste marked as biohazard
- Decontamination team health monitoring



# PEG Infectious Cleanup Training, Technology and Standard Operating Procedures

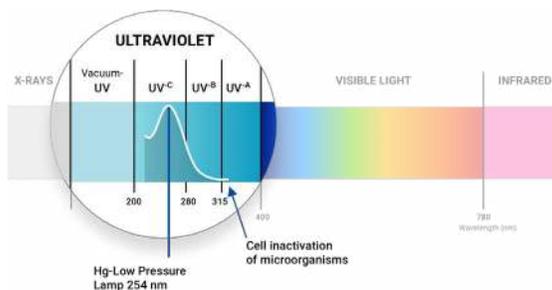
## CLEANING AGENTS

PEG uses EPA-registered chlorine or peroxide-based cleaners known to be highly effective against the COVID-19 virus. These products are designed for disinfection of hard, nonporous surfaces and do not leave corrosive residues. They are fragrance and dye free.

## ULTRAVIOLET LIGHT DISINFECTION

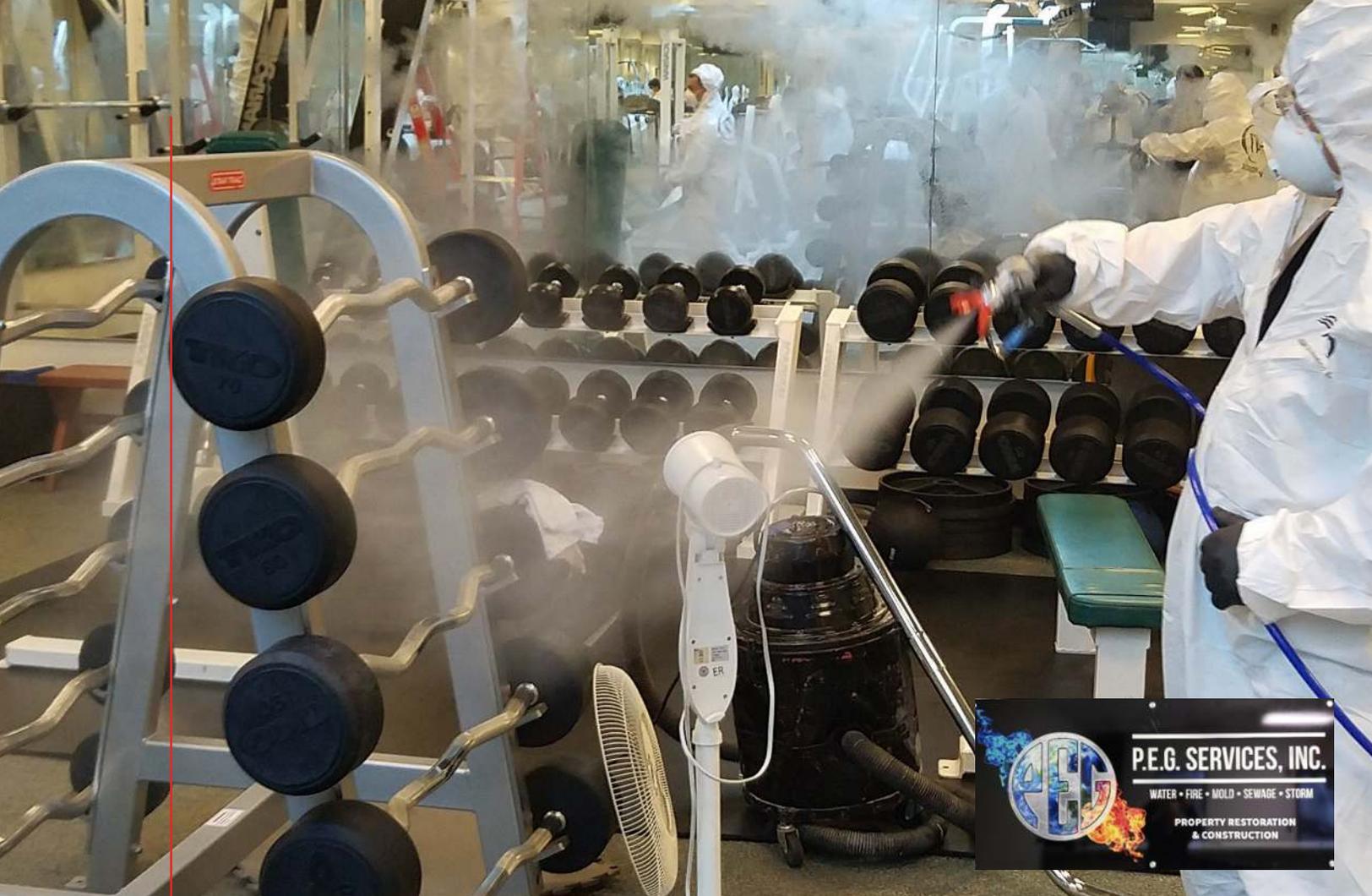
PEG is fully equipped to offer state-of-the-art surface disinfection using UV Mobile Room Sanitizers as an added-value alternative to achieve surface sanitation and sterilization. The UV Room Sanitizer unit is specifically designed for disinfection of bacteria, viruses, and fungi (mold) on exposed surfaces.

The application of UV-C energy to deactivate microorganisms is known as Germicidal Irradiation or UVGI. Artificial UV-C energy is produced in germicidal ultraviolet lamps that produce UV radiation by ionizing low pressure mercury vapor. These lamps are similar to typical fluorescent household lighting fixtures, but do not have the phosphorescent coating which imparts the soft white light. Ionized mercury emits a predominantly discreet wavelength of 254nm in the UV-C band, which is an ideal wavelength for destroying the DNA of single-celled organisms.



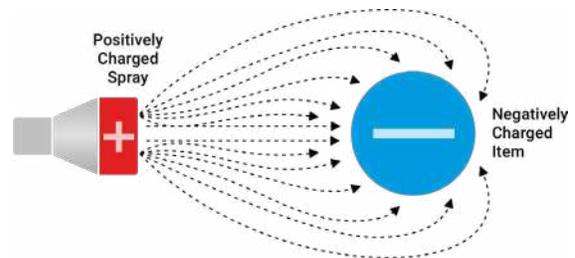
Shutdown of an organism's metabolic and reproductive processes result from the absorption of UV light, rendering it no longer pathogenic.





## VAPORIZED HYDROGEN PEROXIDE MIST FOGGERS

PEG uses hydrogen peroxide mist foggers to disperse sanitizing chemicals and disinfect surfaces. Mist foggers use electrostatic spraying (see figure to the right) to ensure large areas and hard-to-reach corners and crevices are coated with disinfectant. This method is ideal for hidden surfaces and high-touch point areas such as railings, door handles, water fountains, lockers and other fixtures and furniture found in high-traffic common areas.



Positively charged disinfectant is attracted to any and all negatively charged surfaces.

## BIOHAZARD WASTE DISPOSAL

PEG VRT technicians are trained in the appropriate disposal of biohazard waste. Waste is handled by certified personnel and sent to state-approved facilities to be thermally destroyed in accordance with local and state regulations.

## REPORTING AND DOCUMENTATION

PEG VRT teams document site activities in accordance with regulatory guidelines and industry standards. Job site reporting can be accessed at any time from PEG client portal. It includes job site photos, daily logs, preliminary assessment reports, safety records and containment and respirator cartridge change logs.

The client determines reporting methodology and frequency early in the planning stage. PEG provides clients with a single point of contact to simplify communication for the project's duration. PEG also remains flexible to adapt to changing conditions or client requirements.

## TEAMS & TRAINING

Decontamination team members are medically cleared, trained and tested for respiratory protection device use.<sup>1</sup> Technicians are skilled in the effective application of cleaning products, proper chemical handling and safety protocols including the doffing and donning of personal protection equipment (PPE) (e.g., respirators, eye protection, gloves, coveralls) and proper waste disposal techniques.

All crews participate in a health-monitoring program for a minimum of 14 days after project completion to ensure the safety of team members and their communities. PEG teams can also coordinate with local health officials so that timely and accurate information guide response operations.

<sup>1</sup> Individuals must be medically cleared, trained, and fit tested for respiratory protection device use (e.g., N95 filtering facepiece respirators), or medically cleared and trained in the use of an alternative respiratory protection device (e.g., Powered Air-Purifying Respirator, PAPR or Full-Face Respirator) whenever respirators are required per OSHA guidelines. They must be vaccinated for influenza, as indicated by PEG standard operating procedures.



## Letter from PEG

As the COVID-19 outbreak continues to impact communities worldwide, business leaders and their teams are mobilizing. The novel coronavirus situation evolves daily and challenges every organization to protect the health of their employees, customers and communities, as well as assess their readiness should exposure occur.

You most likely are facing increased pressure as you balance business continuity measures, preventative planning and communication efforts to address the anxiety and uncertainty in your communities as daily reports regarding new exposures, closures and fatalities rise.

Here at PEG, we recognize our responsibility not only as an enterprise facing the same challenges you do, but as industry experts called to serve during this crisis. Our commitment to you starts with providing the latest information, sharing our EHS (environment, health and safety) and decontamination expertise and providing the services that help keep our communities healthy and safe.

Our EHS and VRT teams are dedicated to answering your questions, providing you multiple levels of support as well as getting you access to industry environmental health leaders such as Dr. Richard Wade, Ph.D, Master of Public Health. His experience includes expertise in the epidemiological sciences, risk planning and environmental health engineering. Leaders worldwide have looked to Wade when designing their response to the SARS and MERS outbreaks, and we are proud to have him on our team.

We understand that disaster events are traumatic for all stakeholders. At PEG, we have dedicated ourselves to helping others during such events and stand ready to assist.

