Pandemic Preparedness Planning

Checklist for Utilities and Other Businesses

**Pandemic Influenza**
A pandemic influenza is a virulent, or highly lethal, human flu virus that causes a global outbreak, or pandemic, of serious illness. Because there is little natural immunity, the disease can spread easily from person to person. It is dangerous because people have no natural antibodies to fight the infection, and since it is a new strain, there are no vaccines.

Pandemics occur in cycles, approximately every 40 - 50 years. The 1918 influenza virus (Spanish Flu) was the deadliest in recent history, infecting 30 percent of the world’s population and killing up to 40 million individuals, particularly young people. In just the first five weeks of that outbreak in West Virginia, there were 2300 cases reported and 200 deaths.

Smaller pandemics have occurred in 1957 and 1968. By all estimates, the world is overdue for an influenza pandemic.

**Swine Flu**
Swine Influenza (Swine Flu) is a respiratory disease caused by type A influenza viruses that causes regular outbreaks in pigs. In late March and early April 2009, cases of human infection with swine influenza A (H1N1) viruses were first reported in California and Texas. An updated case count of confirmed swine flu infections in the United States is kept at [http://www.cdc.gov/swineflu/investigation.htm](http://www.cdc.gov/swineflu/investigation.htm) The Centers for Disease Control has determined that this swine flu A (H1N1) virus is contagious and is spreading from human to human.

The symptoms for this strain of swine flu are similar to the symptoms of regular flu and include fever, cough, sore throat, body aches, head ache, chills and fatigue. Some people have reported diarrhea and vomiting associated with swine flu. In the past, severe illnesses (pneumonia and respiratory failure) and deaths have been reported with swine flu infection in people. Like seasonal flu, swine flu may cause a worsening of underlying chronic medical conditions.

At this time it is believed swine flu is spread the same way seasonal flu is spread. Flu viruses are mainly spread from person to person through the coughing or sneezing of people with influenza. Sometimes people may become infected by touching something with flu viruses on it and then touching their nose or mouth. Infected people may be able to infect others beginning 1 day before symptoms develop and for as long as they are symptomatic, or up to 7 or more days after becoming sick. Children, especially younger
children, might potentially be contagious for longer periods. That means you may be able to pass the flu on to someone else before you know you are sick as well as while you are sick.

There is no vaccine available right now to protect against swine flu.

For more complete and up to date information about swine flu go to http://www.cdc.gov/swineflu/swineflu_you.htm

**Developing a Pandemic Influenza Continuity of Operations Plan**

It would be a mistake for any business to take their continuity of operations plan or work stoppage plan, make a few minor adjustments and consider it to be a plan which could effectively direct operations in the event of an influenza pandemic. Some of the differences between the two types of plans include:

- A pandemic is a global event; it is a local crisis worldwide. It can occur in every state and every city and every town at the same time. Consequently, shippers and suppliers from other locations are much more likely to be affected by a pandemic than other disruptions to a business;

- A pandemic will result in employee absences that are much more random than worker strikes or facility closures;

- Expected worker absences during a pandemic are likely to be longer than those due to weather or many other kinds of disruptions.

There is no way of knowing when an influenza pandemic will occur, it could be months or years away. Planning for an outbreak needs to be aimed at sustainable approaches. Pandemic preparedness should be built upon strong, well established core emergency response systems, including emergency management entities and local health departments.

When developing a Continuity of Operations Plan for your business there are many useful planning tools to utilize. Several of them have been identified as being particularly good:

- Pandemic Influenza: Preparedness, Response and Recovery Guide for Critical Infrastructure and Key Resources, written by the US Department of Homeland Security

- Business Pandemic Influenza Planning Checklist, written by The Centers for Disease Control
• Influenza Pandemic Planning, Preparation, and Response Reference Guide, written by the North American Electric Reliability Council


Links to these publications are available on the Public Service Commission of West Virginia website www.psc.state.wv.us

When developing a Continuity of Operations Plan for your business, there are some basic steps you should follow.

1) Assemble a Pandemic Preparedness Planning Team

The first step in developing a plan is to determine who should be on the planning team. Involve a broad cross-section of people from throughout your organization making sure to include those with expertise vital to daily business functions. This will likely include people with technical skills as well as managers and executives.

Include personnel from all levels in planning and as active members of the Pandemic Preparedness Planning Team.

You will also want to include someone with communications expertise to develop a communication plan for customers and staff as well as someone with some medical expertise to evaluate information on the virus and make adjustments in your plan.

Identify a planning coordinator who will pull together all the resources necessary to develop the plan and keep the group on task.

2) Conduct an Assessment of your Operations

Carefully review how your company functions, both internally and externally, to determine which staff, materials, procedures and equipment are essential to keep the business operating and continue serving your customers.

• Review your business process flow chart if one exists. If one does not exist, prepare one.

• Prioritize the functions of your company:
  o What are the essential functions of your business?
  o What are the core skills required to meet these functions?
  o Which operations could be scaled back and which would need to be performed in the event of a massive worker shortage. Consider
functions including pumping and treating, line breaks, new service hook ups, line expansion, routine maintenance, valve exercising, routine line replacement, billing, internal audits, service disconnects for non-payment, etc.

- Who are the individuals required to keep the essential functions running?
- Are there sufficient backups for these people and skills during a large scale personnel outage?
- Which operations could be suspended?
- Which individuals are not necessary to keep essential functions running?
- Could non-essential personnel be trained and reallocated to back up essential positions during an influenza pandemic?

- Identify operations essential to survival and recovery.

- Consider provisions for emergency payroll, expedited financial decision-making and accounting systems to track and document costs in the event of a disaster.

- Establish procedures for succession of management. Include at least one person who is not at the company headquarters, if possible.

### 3) Ensuring your Inventory

- Identify and document existing and potential suppliers of regularly purchased chemicals, parts, fuel and supplies.

- Have written records identifying your suppliers, shippers, resources and other businesses with whom you regularly interact.

- Establish relationships with more than one company to use in the event your primary contractor cannot service your needs. A disaster that shuts down a key supplier can be devastating to your business.

- Make sure all your suppliers have Continuity of Operations Plans in place.

- Create a contact list for existing critical business contractors and others you could use in an emergency. Keep copies of this list with other important documents on file, in your emergency supply kit, as an appendix to your Standard Operating Procedures Manual and at an off-site location.

- Know your facility’s chemical requirements: the amount stored on site and estimated daily usage for each chemical your facility uses. Know how long you could continue to operate without receiving any shipments.
Those businesses depending on “just-in-time” inventory systems should look at developing an on site surplus of critical supplies.

- Identify alternate storage facilities in case it is necessary to stockpile chemicals.

- Identify others in the community (i.e. swimming pools if you are a water utility) who may have surplus of commonly used chemicals that could be shared in an emergency.

4) Prevention -- Keeping your workplace and employees healthy

Overall Wellness in the Workplace
Presumably pandemic influenza will be more severe for individuals who are not in good health when they contract the disease. Therefore, encouraging employees to maintain as healthy a lifestyle as possible will lessen the severity of the impact on those employees who fall ill. Encouraging a healthy lifestyle can be done in many ways:

- Regular and proper hand washing. This cannot be overstated -- it is the single most important thing people can do to prevent spreading or falling ill with contagious diseases. According to the Centers for Disease Control, you should always wash your hands:
  - Before eating;
  - Before, during and after handling or preparing food;
  - After contact with blood or body fluids (like saliva or nasal secretions);
  - After changing a diaper;
  - After using the bathroom;
  - After handling animals, their toys, leashes or waste;
  - After touching something that could be contaminated (like a trash can, cleaning cloth, drain or soil);
  - Before dressing a wound, giving medicine or inserting contact lenses;
  - Whenever they look dirty; and,
  - More often when someone in your home is sick.

When you wash your hands you should:
  - Wet your hands and apply liquid, bar or powdered soap;
  - Rub your hands together vigorously to make a lather and scrub all surfaces;
  - Continue for 20 seconds! It takes that long for the soap and scrubbing action to dislodge and remove stubborn germs. Need a timer? Imagine singing “Happy Birthday” all the way through -- twice!
  - Rinse your hands well under running water;
  - Dry your hands using a paper towel or air dryer; and,
If possible, use your paper towel to turn off the faucet and open the bathroom door.

- Encourage employees to get annual physicals.

- Make sure your employees keep all appropriate and recommended vaccinations up to date, particularly Tetanus and Hepatitis B. For the current recommended adult immunization schedule please go to: http://www.cdc.gov/nip/recs/adult-schedule.htm#print

- Encourage and, if possible, pay for employees and their families to get annual flu shots. There is no evidence that seasonal flu shots will protect you from a pandemic influenza but they are recommended for several reasons. First, if fewer people get the seasonal flu it will keep medical services available for an influenza pandemic. Secondly, presumably pandemic influenza will have a more immediate and severe impact on those people who are not healthy and strong. Seasonal influenza is likely to weaken one’s immune system and leave them more vulnerable to contract pandemic influenza. And finally, it would assist in diagnostic purposes. Someone who has received a seasonal flu shot and comes down with flu like symptoms could more readily be identified as potentially being infected with pandemic influenza.

- Get an adequate amount of sleep.

- Eat a healthy balanced diet.

- Get regular exercise.

**Vaccines anti-viral medications**

As recognized at various levels, utilities are critical components of community infrastructure. Utility companies need to make contact with their local health departments and health care providers to learn more about and ensure mechanisms are in place for critical utility company personnel to receive vaccinations (once they are developed) and available anti-viral medications in an event in accordance with federal and state prioritization recommendations. Essential personnel within critical infrastructure sectors are expected to be high on these lists in a severe pandemic.

**Limiting the spread of disease within a company**

Although there are no guarantees, there are many inexpensive or cost-free measures a business can take to lessen the opportunities for employees to spread or contract viruses, including pandemic influenza, while at work. Some of these measures include:

- Encourage employees to stay home when sick.
• Frequent and thorough hand washing.

• Follow proper coughing etiquette:
  o Don’t cough or sneeze near others;
  o Cover your mouth when you cough or sneeze; and,
  o Cough into a tissue or your sleeve, not in your hand.

• Disposal of used tissues into trash cans.

• Avoid sharing drinks, food or silverware.
• Avoid touching common surfaces whenever possible including door knobs, stair railings, etc.

• Discourage the sharing of work stations, phones, keyboards, etc.

• Discourage sharing pens, pencils, staplers, staple pullers, etc., especially those items that are easily put into the mouth.

• Generously supply and distribute anti-bacterial cleansers and wipes at work stations and all common areas including copy machines, supply cabinets, kitchen areas and bathrooms.

• Utilize conference calls instead of meetings.

• Discourage the practice of shaking hands.

During an influenza pandemic, additional more restrictive practices may be employed in order to prevent the spread of the disease. These practices could include:

• Limit Face to face contact with customers.

• Impose a minimum distance between employees of 8 - 9 feet (or whatever the disease protocol dictates) whenever possible so an employee who has unknowingly been infected and is shedding the virus is less likely to infect his/her coworkers.

• Split and segregate essential staff into separate offices or locations.

• Consider developing an emergency support plan for your non-infected critical staffing employees. Include provisions for shelter, cots, food, food preparation equipment and supplies, drinking water, clothes or laundry facilities, laundry supplies and personal hygiene items (i.e. soap, shampoo, toothbrush, toothpaste, etc.).

• Recognize employees will respond to and accommodate their families’ needs. Employees who may be at significant risk of exposure in their job
responsibility may not want to travel back and forth to family. The same provisions noted in the bullet above may help enable their continued work through the event.

- Supply employees with protective clothing, such as masks, gloves, safety glasses, etc., based on level of risk and recommendations of public health authorities. Ready access to hand sanitizers in the workplace can also be a good and easy infection control measure.

- As always, employees should use standard personal protection measures including use of disposable gloves and appropriate hand washing when contacting any waste products (e.g., trash with tissues, materials contaminated with human body fluids, sewage, etc.).

- Track where your employees are traveling. Know if they have been in a high exposure area. Know when they were potentially exposed, how long the incubation period is and what the early symptoms are.

This list will be updated as a pandemic influenza virus is identified and the conditions of its transmission are understood and the protocols are developed.

Protect your employees from potentially infected customers
Businesses may find they need to modify some procedures in order to protect their employees from being infected from individuals outside the company. These measures could include:

- Remote dispersal of crews or dispatching work crews from their homes rather than from company offices.

- Implementation of a system control and data acquisition method that would allow for remote meter reading and instrument monitoring without putting your employees in the midst of potentially infected customers.

- Restrict public access to the plants.

- Temporarily suspending bill paying and customer service assistance in the office. All bills would be paid on line or by mail.

Keep Families Healthy and Prepared
Since children may be the most efficient method of spreading viruses, companies could further protect their employees by educating them on how to extend healthy practices to their homes and schools:

- Keep anti-bacterial lotions and wipes in children’s backpacks.
• Supply your child’s teachers with anti-bacterial lotions and wipes.
• Teach and encourage single use and disposal of tissues.
• Tell children not to share pens, pencils, other school supplies and desks.
• Teach and encourage frequent and thorough hand washing.
• Teach and encourage coughing etiquette (into sleeve or tissue).
• Teach your children to avoid close contact with people who are or appear to be sick.
• Keep your children home if they are sick.

Additionally, there are other things families can do to prepare for and lessen the consequences of an influenza pandemic.

• Encourage employees to develop family emergency response plans. Provide examples of sample family plans in company newsletters. Create emergency kits for work sites. Promote a pro-active approach to emergency management.

• Encourage families to put together emergency kits which would include a two week supply of bottled water and non-perishable foods including ready to eat canned soup, meat, vegetables, fruits, beans and fish. Also dry cereal, breakfast or protein bars, peanut butter, nuts, crackers, powdered milk, bottled juice, baby formula, jars of baby food and pet food are good staples.

• Maintain a supply of over the counter drugs to combat cold and flu-like symptoms, stomach aches, pain relievers, fluids with electrolytes and vitamins. Regularly check the expiration dates and replenish the supply as necessary.

• Keep a supply of basic medical equipment and emergency supplies on hand (i.e. thermometers, bandages, gauze, tape, flash lights, batteries, a portable radio, candles and matches and a manual can opener)

• Keep a supply of dry goods such as trash bags, toilet paper, tissues, paper towels, laundry and dish soap, disposable diapers, hand and bath soap, anti-bacterial lotions, sheets, towels, washcloths and blankets.

• Encourage all members of the family to check their prescription drugs regularly to make sure they have an adequate supply.
5) Prepare for Employee Absences

A moderately severe influenza pandemic would leave businesses trying to operate without 40% of their workforce for up to several weeks for a variety of reasons:

- Suspected illness or potential exposure to virus;
- Recovery from actual illness;
- Caring for an ill family member;
- Lack of childcare (schools are likely to be closed during a severe outbreak);
- “Worried well”, those individuals who are not sick but fear becoming exposed to the disease;
- Fulfilling other voluntary roles in the community; and,
- Travel restrictions could be imposed that would make getting to work difficult for some employees.

Obviously this creates serious staffing problems. Some creativity may need to be explored in bridging these gaps.

- All utilities should have an up-to-date Standard Operation Procedures Manual on site where it is easily accessible so an operator not familiar with your facility could potentially come in and run your facility in the event of a total staff outage.
- Prioritize work: essential emergency repairs vs. scheduled upgrade work, system expansion or discontinuation of service for billing issues.
- Identify critical on site personnel.
- Describe the procedures or plans by which the company will assure staffing for critical functions, including cross training, telecommuting or remote dispersal of personnel.
- Cross train personnel in non-essential functions to serve as back up for personnel in critical functions. Train and prepare ancillary workforce (i.e. contractors, employees in other job titles/descriptions, retirees) to perform critical functions. Whenever possible, cross train three-deep for critical functions.
• Arrange for the necessary hardware, software and IT security measures to allow employees to telecommute and/or remote report.

• Keep an up to date skills inventory of which employees, retirees, contract workers, etc. are trained to perform which job functions so this information is readily available to utilize in filling staffing shortages.

• Explore the use of alternate work systems for some positions (i.e. telecommuting, flex-time or remote reporting).

• Businesses should have flexibility in their employee rules so vacations may be cancelled if needed during an influenza pandemic.

• Establish policies relating to employees using sick leave to care for family members and “well worried”.

• Have a complete and up to date list of contact names and phone numbers for staff, board members, suppliers, vendors, contract employees, consultants and others who would have information useful to those attempting to staff the facility in an emergency. This list should be in an easily accessible location and as an appendix to the utility’s Standard Operating Procedures Manual.

• Identify additional resources your company will require in order to maintain service to your customers in the event of a pandemic (i.e. additional CDL drivers).

• Have all parts, chemicals, tools, supplies, etc. clearly labeled and accessible.

• Make provisions to get employees to work in the event of a fuel shortage or travel restrictions.

• Explore the possibility of developing a Utility Mutual Aid Consortium with similar utilities in your area. The American Water Works Association and The California Utilities Emergency Association have developed a document called Utilities Helping Utilities, An Action Plan for Mutual Aid and Assistance Networks for Water and Wastewater Utilities, which spells out how to create this type of cooperative arrangement. This document is available on the Public Service Commission of West Virginia Website www.psc.state.wv.us
You may want to get in touch with one of the following organizations for assistance developing a consortium in your area:

- West Virginia Rural Water Association
  Debbie Britt, Executive Director: 304-201-1689

- West Virginia Small Public Utilities Association
  Tom Hanna, Executive Director: 304-342-1687

6) Adjust Company Policies to accommodate the strains of a pandemic

Businesses may want to consider adjusting a variety of company policies during an influenza pandemic:

- Consider whether or not you will be flexible with your customers on late payments for service.

- Review and consider revising existing employee policies relating to acceptable lengths of sick leave. Businesses won’t want to lose good employees because they have depleted their leave nor will they want them coming back to work if they are still sick. If providing employees with extended paid sick leave is not possible consider developing policies to accommodate unpaid leaves of absence.

- Understand how the Federal Family Medical Leave Act (FMLA) affects your business.

- Determine how you will deal with employees who are “worried well”.

- Establish triggers to activate modified policies.

7) Communicate and Coordinate With Others

In the event of an influenza pandemic good communication will be the key to distributing important and necessary information, ensuring systems continue to run properly and to control hysteria. Preparations need to be made now so channels of communication are open and operational during an outbreak.

If they haven’t already, all businesses should get access to the internet. More and more, this is becoming the fastest most efficient way to communicate and access information.
Businesses should identify good, reliable, current sources of information so that they may stay up to date on information relating to pandemic influenza. Some recommended internet links include:

www.PandemicFlu.gov
www.hhs.gov
www.cdc.gov
www.wvflu.org

Communicate with your Employees
Talk with your employees about the threat of pandemic flu and the steps your company is taking to prepare for it. Establish an emergency communications plan and revise it periodically. The plan should include key contacts (with back-ups), a chain of communication (including suppliers and customers), and the process for communicating pandemic status and action to employees, vendors, suppliers and customers inside and outside the worksite in a consistent and timely way.

Businesses should investigate alternate methods of communication in the event of a phone system failure. One possibility would be the use of two way radios in order to maintain contact with service personnel in the field.

Communicate with your Customers
When a pandemic occurs you will need to get information to your customers in an efficient and timely manner -- preferably without spending a lot of money. Some of the information your customers will need will include:

- Is access to your plant or customer center restricted?
- How do they pay their bills?
- Can the water spread disease? (while some diseases can be spread through untreated water, influenza is not typically spread by this route.)
- Is the utility imposing a boil water order, and if so why?

There are a variety of ways a business can get information out. Some ways you might consider include:

- Using the company web site. Develop a site if you don’t have one.
- Web Log (BLOG)
Advise your customers now where to go for information if a pandemic hits. Understand how your customers’ needs may change in the event of a pandemic (i.e. would buildings in your district be converted into medical facilities and require more water than usual?).

Coordinate with your Community
Businesses also need to discuss, compare and coordinate pandemic preparedness plans with other businesses and governmental entities in their community.

- Meet with other businesses in your building or industrial complex.
- Talk with first responders, emergency managers, community organizations and utility providers.
- Plan with your suppliers, shippers and others with whom you regularly do business.
- Share your plans and encourage other businesses to set in motion their own continuity planning. If possible offer to help others develop their plans.
- Understand how your Continuity of Operations Plan affects your neighbors and colleagues and how theirs affect you.
- Become involved in local emergency planning activities. Talk with the local health department and the local emergency planning committee to determine plans for your community.
- Develop a relationship with your local health department. Review your continuity of operations plans with them. Discuss the importance of maintaining utility service to your customers and explain how and why your essential employees should be considered for First Responder or Critical Infrastructure priority access to any available doses of vaccines or anti-viral medications, as applicable. Learn about the need for and rationale behind prioritization of these limited resources and the implications of applying such recommendations consistently across jurisdictions and the implications of not applying such recommendations consistently across jurisdictions.
- Share your pandemic contingency plans with insurers, health plans and major health care providers. Become educated about their capabilities and plans.
8) Pandemic Preparedness Planning Phases

Pandemic influenza continuity of operations plans should be written with phases of activation or triggers for action built into the response process.

The five phases listed below are based on information developed by the World Health Organization (WHO). These phases do not align exactly with the WHO phases but rather have been modified by the North American Electric Reliability Council for use in business continuity planning for the electric sector.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Consequences for Business</th>
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<tbody>
<tr>
<td>Phase 1</td>
<td>Governments, owners and operators are notified a pandemic is possible and preparedness plans should be reviewed and updated.</td>
</tr>
<tr>
<td>Pre-Pandemic</td>
<td>Localized outbreaks are occurring with human-to-human transmission. Governments and electricity sector entities begin to assign resources, prepare staffing, and implement contingency plans. Begin an information distribution program to promote appropriate responses by employees.</td>
</tr>
<tr>
<td>Influenza</td>
<td>General outbreaks across borders and continents. Implement response plans.</td>
</tr>
<tr>
<td>Pandemic</td>
<td>High absentee rates would occur (35 percent) and fatalities would begin to impact the workforce. This phase could last several months.</td>
</tr>
<tr>
<td>Maximum</td>
<td>Recovery will be slow and the underlying economy will weaken. Altered business conditions will be prevalent for large and small firms. This phase will last for at least three months and possibly as long as six months.</td>
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<tr>
<td>Disruption</td>
<td></td>
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<tr>
<td>Prolonged</td>
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<tr>
<td>Recovery</td>
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A complete copy of the Electricity Sector Influenza Pandemic Planning, Preparation and Response Reference Guide by the North American Electric Reliability Council can be found on the Public Service Commission of West Virginia’s website [www.psc.state.wv.us](http://www.psc.state.wv.us)

This document includes a template utilities may use in developing their pandemic continuity of operations plans.
9) Test your plan

Testing your plan is critical to ensure it will do what you need it to do.

One method of testing your plan would be to put all your employees’ names in a hat. Randomly draw 30% of the names out. Have those employees sit in your board room for a full day. One third of your “quarantined” employees may be contacted occasionally by phone but no one can leave the board room. They cannot access their files; walk into the control room, etc. Where does your system shut down?

10) Review your emergency plans regularly

Just as your business changes over time, so do your preparedness needs. When you hire new employees or when there are changes in how your company functions, you should update your plans and inform your people. Don’t let your plan gather dust on a shelf.

The very nature of a pandemic is that it is a new strain of virus. Once identified, scientists will begin to understand how it has mutated, how it is spread, how it is killed, etc. This information needs to be incorporated into plans so we can better protect ourselves, our employees and our families.