

Playbook:

Utilities Emergencies

Audience: Government
Issue: Safety and Security



Effective and Efficient Communication Strategies

Did you know . . .

- ▶ Nearly three million Americans live within 10 miles of an operating nuclear power plant. ¹
- ▶ The US energy transportation network includes over 2.5 million miles of pipelines. ²
- ▶ On average, three fatalities and eight injuries occur annually in natural gas pipeline incidents. ³
- ▶ After severe flooding, drinking water may not be safe to use, or available at all. ⁴

What, when and how you communicate before, during and after a utility-related disaster is critical.

BEFORE A UTILITY DISASTER OCCURS

Develop a communication plan in advance

Before a utility disaster occurs, review and revise your crisis communication plan. Determine the length of time for specific actions as detailed in the plan. Set a timeline for the order in which actions need to be put into effect.

Establish protocols to test all procedures and equipment on a regular basis. Periodically test the readiness of your mass notification system. As appropriate, communicate regularly with the public about utility disaster preparedness, and let them know what types of messages they can expect to receive in the event of a utility disaster.

Coordinate with utilities

Develop contacts with local and regional utilities and coordinate with one another to determine appropriate protocols for reacting and responding to a utility disaster. Ensure that mandated materials are distributed to the public as scheduled. For example, anyone living within 10 miles of a nuclear power plant should receive emergency information materials on an annual basis. ⁵

Coordinate with other agencies

Coordinate efforts with other officials in your region for effective, efficient messaging. On a quarterly basis, publicize and jointly conduct sign-up drives to gather citizen contact information for use with your mass



PREPARE AN EMERGENCY WATER SUPPLY

After an emergency, such as a flood, hurricane, or earthquake, drinking water may not be available or safe to drink. As a result, residents may have to find a source of safe drinking water or know how to treat their water for use in certain activities, such as drinking, making ice, washing hands, and brushing teeth. To prepare a supply of safe drinking water, take the following steps:

- Store at least 1 gallon of water per day for each person and each pet. You should consider storing more water than this for hot climates, for pregnant women, and for persons who are sick.
- Store at least a 3-day supply of water for each person and each pet (try to store a 2-week supply if possible).
- Observe the expiration date for store-bought water; replace other stored water every six months.
- Store a bottle of unscented liquid household chlorine bleach to disinfect your water and to use for general cleaning and sanitizing.

From "Personal Preparation and Storage of Safe Water," US Centers for Disease Control and Prevention. http://www.cdc.gov/healthywater/emergency/safe_water/personal.html

notification system. Work with other agencies, such as local fire departments, police and sheriff's departments, and Emergency Medical Services to streamline messages and reduce duplicate notifications.

When appropriate, coordinate with neighboring jurisdictions to provide redundancy in communication systems. Formal mutual aid agreements can include details regarding communications assistance. Sources such as amateur radio operators, the Civil Air Patrol, local hospitals and the American Red Cross may also have the capability to assist with communications during a utility disaster.⁶

Establish a single point of contact

During and immediately after a utility disaster occurs, there won't be time to determine a spokesperson. Designate an Emergency Communications Director, who will rapidly assess the need for communications support and identify, acquire and deploy resources to support critical emergency operations. This person should also have primary responsibility for communicating with the public, other agencies, and the media.

Publicize the fact that this office/person will be the primary point of contact during an emergency. Doing so in advance will enable emergency responders to focus on their work with fewer interruptions.

Educate the public

Prepare the public for the possibility of a utility disaster and educate them by taking the following actions:

- ▶ Work with local and regional utilities to distribute emergency information to aid in planning for, and reacting to, a utility disaster. Include the phone numbers of local emergency services offices, the American Red Cross, and area hospitals.
- ▶ Encourage the public to minimize the possibility of a pipeline disaster by using the National Pipeline Mapping System, as well as local "Call Before You Dig" utility locator systems, to determine the locations of underground pipelines.²

WHERE ARE THE PIPELINES?



Most hazardous liquid and gas pipelines are buried underground. To ensure your safety and avoid damaging underground lines,

you must call your state one-call center before digging.

Most hazardous liquid and natural gas transmission pipelines are located underground in rights-of-way (ROW). A ROW consists of consecutive property easements acquired by, or granted to, the pipeline company. The ROW provides sufficient space to perform pipeline maintenance and inspections, as well as a clear zone where encroachments can be monitored and prevented.

To find out if a transmission pipeline is located near you, you can visit the National Pipeline Mapping System (NPMS) and search by your county or zip code.

Pipeline operators are required to post brightly-colored markers along their ROW to indicate the presence of – but not necessarily the exact location of – their underground pipelines. Markers come in a variety of shapes and sizes. They contain information about the nearby pipeline as well as emergency contact information for the company that operates it.

Natural gas distribution systems consist of distribution main lines and service lines. Distribution main lines are generally installed in underground utility easements alongside streets and highways. Distribution service lines run from the distribution main line into homes or businesses. Distribution main and service lines are not generally indicated by above-ground markers. To ensure safety and avoid damaging underground lines, anyone planning to dig or excavate is required by law to contact their state One-Call center 48 to 72 hours before digging.

From "Pipeline Basics," US PHMSA Pipeline Safety Program. <https://primis.phmsa.dot.gov/comm/PipelineBasics.htm>

- ▶ Coordinate with local emergency services and American Red Cross officials to prepare and deliver information about utility disaster response specifically for people with reduced mobility, including senior citizens and families with infants and small children.
- ▶ Distribute information and instructions for preparing a supply of safe water for drinking, cooking, and bathing.⁷

Develop backups & contingency plans

As a result of a utility disaster, communication networks and utilities may be disrupted, key officials and staff members may be unavailable, and resources may be in use or otherwise unable to assist. For each communication task, assign a backup who can assume the task if the primary communicator is unable to perform it.

Develop alternate means of creating documentation in the event that electronic systems are unavailable.

Event logs and communications traffic records are vital for documenting emergency actions for possible post-emergency investigation or after-action reports. Records documenting the number of people involved in communication activities, whether paid or volunteer, are needed for possible reimbursement under Presidential disaster declarations.⁸

Use your mass notification service to send periodic messages reminding your community about disaster preparedness, and list items to include in a disaster preparedness kit.

A utility disaster can pose significant challenges for special-needs populations, including seniors and people with disabilities. Use your mass notification service to create and maintain a separate list of those with special needs, and send targeted messages designed to meet their specific needs.

DURING A UTILITY DISASTER

What and when to communicate

The impact of a utility disaster can be limited to the



immediate area where the incident occurs or, as in the case of the Fukushima Daiichi nuclear disaster in Japan, it can affect millions of people.⁹

While not all utility emergencies have stated stages of severity, understand the warnings

and terms used to describe specific levels of danger:

Drinking Water Advisories

- ▶ **Informational** – Used for a range of purposes, including failure to meet standards with non-acute endpoints, emergency preparedness, and water conservation.
- ▶ **Boil Water** – Used for potential or demonstrated microbial contamination, as may occur with loss of pressure, Tier 1 microbial violation, natural disaster, or vandalism.

- ▶ **Do Not Drink** – Used for potential or demonstrated contamination that could cause acute health effects, such as chemical overfeed into the water supply.
- ▶ **Do Not Use** – Used with caution due to risk associated with lack of sanitation and fire protection, indicating contamination which makes any contact hazardous to human health.¹⁰

Nuclear Power Plant Emergency

- ▶ **Notification of Unusual Event** – Used when a minimal problem occurs at the plant. No expected radiation leak; no public action required.
- ▶ **Alert** – A small problem has occurred, with possible slight radiation leaks that are contained within the plant. No public effect, and no public action are required.
- ▶ **Site Area Emergency** – A radiation leak has occurred in or around the plant. Area sirens may sound; monitor local news media for safety information.
- ▶ **General Emergency** – A radiation leak could affect areas outside the plant and offsite. Area sirens will sound; monitor local news media and prepare to act quickly.¹¹

Use your mass notification service to notify the public that utility disaster response plans have been activated and are being carried out. Encourage citizens to minimize telephone use, keeping lines open for emergency communications.

Shelter-in-place orders and evacuations: Use your mass notification service to notify community members affected by utility disasters and resulting outages to evacuate to a pre-designated shelter area. Be sure to note potential evacuation routes which should NOT be taken due to road damage, fallen debris, water contamination, radiation, pipeline leaks, or other safety concerns.

How to communicate

Set up a point of contact for individuals to speak with about specific questions or concerns, but keep in mind that some communication avenues may be unavailable. Use public social networks, like Facebook or Twitter, to share information publicly and address common questions in one place.

Use the Emergency Alert System (EAS) to disseminate important emergency information quickly. A state emergency manager can broadcast a warning from one or more major radio stations in a particular state. EAS

equipment at other radio and television stations, along with cable television systems, can automatically monitor and rebroadcast the warning.¹²

Care must be taken to avoid unnecessarily causing alarm, while ensuring that those affected by the disaster receive the information they need. A mass notification service can enable you to distribute messages rapidly by mobile or landline phone, email, or SMS (text messaging), providing multiple channels to reach the public



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even if some services are disrupted. Such messages can be widely delivered to the general public, or can be tailored for and distributed to specific audiences. Mapping software can target messages toward specific areas affected by a utility disaster, particularly when integrated with mass notification services.

Use templates developed in advance, which allow for details to be added quickly, saving time in the event of a utility disaster. Maintain a complete and up-to-date list of media contacts to ensure all media receive information and updates throughout the disaster.

DURING A NUCLEAR POWER PLANT EMERGENCY

The following are guidelines for what you should do if a nuclear power plant emergency occurs. Keep a battery-powered radio with you at all times and listen to the radio for specific instructions. Close and lock doors and windows.



If you are told to evacuate:

- ▶ Keep car windows and vents closed; use re-circulating air.

If you are advised to remain indoors:

- ▶ Turn off the air conditioner, ventilation fans, furnace, and other air intakes.
- ▶ Go to a basement or other underground area, if possible.
- ▶ Do not use the telephone unless absolutely necessary.

If you expect you have been exposed to nuclear radiation:

- ▶ Change clothes and shoes.
- ▶ Put exposed clothing in a plastic bag.
- ▶ Seal the bag and place it out of the way.
- ▶ Take a thorough shower.

Keep food in covered containers or in the refrigerator. Food not previously covered should be washed before being put into containers.

From "During a Nuclear Emergency," FEMA. http://www.fema.gov/hazard/nuclear/nu_during.shtm

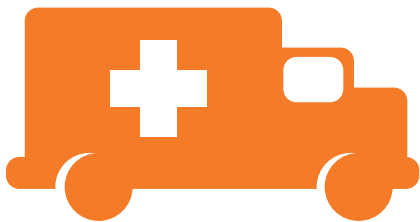
AFTER A UTILITY DISASTER

Declaring an end to the crisis



Once the emergency has passed, issue all-clear messages, announce curfews or issue travel advisories. Advise residents to monitor their property for structural damage, particularly damaged water, power, and gas lines. Distribute these announcements as widely as possible in order to preempt calls, allowing emergency management staff to stay on task. If certain areas remain unsafe for residents and workers to return, advise citizens to monitor local news broadcasts until a safe return is possible. Use your mass notification system to target these areas with additional information.

Recovery efforts



After a utility disaster, inform your community about service restoration, debris removal, and procedures for returning to evacuated areas. Share insurance claim contact information and announce recovery assistance programs and workshops. If your community is eligible for FEMA assistance, let residents know about the application process.

Recruit and coordinate volunteers, organize community clean-up events, if feasible, and collect supply donations. Let your community know where they can get items, such as a three-day supply of water and food, first-aid kit, batteries and fuel.

Protect your community from con artists and price gouging in the aftermath of a utility disaster. If scammers or criminal activities become evident, issue community alerts to raise awareness among citizens.

After a utility disaster, misinformation can quickly spread, both in the media and via word-of-mouth. Disseminate accurate information to your community about the storm and recovery efforts to provide reassurance. Send up-to-date information and alerts to local media outlets, through known spokespersons, and using an established and trusted method, to deter gossip and misinformation.

Recap of actions taken



Invite community residents, students, and staff members to public meetings and encourage participation in discussions of the disaster's effect on the county or local communities. Involve representatives from the affected utility, particularly if it is a municipal system. Be sure to announce the time, date and location of such meetings. Provide as much advance notice as possible, and send regular reminders. Email can also be used to share the meeting agenda and various subjects to be discussed.

Reach out to key reporters in the area and let them know how officials have been providing direction and updates to the community, what kinds of messages have been sent and that more information will follow, including details about road-clearing efforts, and when utilities will be restored in areas where outages have occurred.

BEFORE, DURING AND AFTER CHECKLIST

Keys to successful communication if a utility disaster occurs:

Before

- Review and revise your crisis communication plan well in advance of a utility disaster
- Build alliances with utility providers, along with other agencies and municipalities
- Designate a single point of contact for all communications & develop an updated media list
- Educate the public before a utility disaster

During

- Deliver information which helps residents protect themselves wherever they may be during a utility disaster
- Use a mass notification service to deliver important messages quickly
- Communicate using any avenues which may be available, including the Emergency Alert System (EAS).

After

- Distribute announcements widely and quickly to:
 - Preempt calls and allow recovery efforts to continue unimpeded
 - Minimize misinformation and rumors
 - Alert citizens about available assistance and relief efforts
- Advise residents to monitor property for structural and utility damage
- Inform citizens regarding safe return to affected areas
- Update local media about response and recovery

ANATOMY OF A SUCCESSFUL MESSAGE

DURING: Sample Message – Chemical Plant Leak Alert

Identify yourself immediately by name and by agency to set an authoritative tone.

→ **Hello, this is Jane Smith with the Oak County Office of Emergency Management. The Bridge Chemical Plant personnel have reported a leak that is not yet under control.**

← Get right to the point.

Many residents have special needs that require early preparation.

→ **Officials are on the scene determining the extent of the leak and preliminary reports show at least some toxic fumes were released and may still be in the air.** Winds are blowing at 10 MPH out of the West in the direction of the East Langford and Greenshire neighborhoods. If you live in or near this area, please move indoors, close all windows and, if possible, turn off air conditioners.

← Succinctly convey exactly what's at stake.

Repeat your key message in one short sentence before closing.

→ **I repeat, a leak has been reported at the Bridge Chemical Plant. Seek shelter indoors immediately. Dial 3-1-1 for information and non-emergency assistance. Dial 9-1-1 in the event of an emergency.**

← Give people resources they need to take immediate action.

Set expectations when you will contact residents next.

→ **Additional updates will be provided as information becomes available.**

← Keep message under one minute whenever possible. Both people's attention spans and answering machines message lengths are limited.

AFTER: Sample Message – All Clear

Use the same person wherever possible.

→ **Hello, this is Jane Smith** with the Oak County Office of Emergency Management with an update regarding the Bridge Chemical Plant leak.

Succinctly convey exactly what's at stake.

→ **The leak has been contained** and officials on the scene can confirm that only a minimal amount of toxic fumes were released. The resultant pollutants should pose no hazard to you, children, or pets. However, if you are experiencing headaches, shortness of breath, or nausea, contact your local physician or hospital.

→ **Again, the leak at the Bridge Chemical Plant no longer poses a hazard.** You may return to normal activity, including returning outdoors and activating air conditioning systems.

← Repeat your key message in one short sentence before closing.

While it is generally recommended messages be less than one minute, following a significant issue it may be prudent to provide extra information to constituents.

→ **Dial 3-1-1 for information** and non-emergency assistance. **Dial 9-1-1** in the event of an emergency. Your compliance throughout this ordeal is greatly appreciated.

→ **Thank you.**

← Give people resources they need to take immediate action.

REFERENCES

Resources

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<https://primis.phmsa.dot.gov/comm/Index.htm?nocache=2455>
Communication advice from the Office of Pipeline Safety (OPS) within the US Department of Transportation, Pipeline and Hazardous Materials Safety Administration.
- US Centers for Disease Control and Prevention – Drinking Water Advisory Communication Toolbox
<http://www.cdc.gov/healthywater/pdf/emergency/drinking-water-advisory-communication-toolbox.pdf> *An extensive guide to communicating with the public during a drinking water advisory.*
- Emergency Response Planning Guide for Public Drinking Water Systems http://www.doh.wa.gov/ehp/dw/security/331-211_5-13-03_Emergency_Response_Planning_Guide.pdf *Guidance for planning a response to a drinking water emergency from the Washington State Department of Health.*
- FEMA: Nuclear Power Plant Emergency
<http://www.fema.gov/hazard/nuclear/index.shtm> *Tips on what to do before, during, and after a nuclear power plant emergency.*
- Communicating With The Public Using ATIS During Disasters
http://ops.fhwa.dot.gov/publications/atis/atis_guidance.pdf
Advice for communicating with travelers under disaster conditions using the Advanced Traveler Information System, from the US Department of Transportation’s Federal Highway Administration.
- Natural Gas Pipeline Safety: How to Protect Your Community
http://www.alliantenergy.com/wcm/groups/wcm_internet/@int/documents/document/007932.pdf *Pipeline safety guide published by Alliant Energy.*
- National Pipeline Mapping System
<http://www.npms.phmsa.dot.gov/> *Home page of the NPMS, operated by the Pipeline and Hazardous Materials Safety Administration. Includes a public pipeline map viewer.*
- Understanding the Power of Social Media as a Communications Tool in the Aftermath of Disasters
<http://www.hsdl.org/?view&did=5896> *Congressional testimony of emergency management and communications professionals regarding the use of social media in disaster situations, from the US Homeland Security Digital Library.*
- Backgrounder on Emergency Preparedness at Nuclear Power Plants
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ABOUT

Why a Playbook?

When a natural disaster or other urgent event develops, there isn't much time to plan how your city or county will react, and even less time to communicate these actions to a concerned public.

The Blackboard Connect™ Playbooks for Local and State Government series provides you with a blueprint for how to communicate with constituents before, during, and after such events..

Blackboard Connect for Government

Blackboard Connect has been the go-to mass notification service provider for local communities and has proven its reliability time and again in emergency situations. Messages can be sent automatically to all constituents, or targeted to reach groups in affected areas, via phone, email or SMS, providing you with quicker message delivery and increased public safety.

The Blackboard Connect platform allows officials to send thousands of messages in minutes, requires no additional hardware, and can be used from any computer with Internet access or telephone. This ensures that administrators can send vital messages from wherever they are located—even if they are evacuated. Additionally, officials receive detailed reports on contacts that did not receive a message, enabling them to follow up through alternative means as needed.

Ask your Blackboard representative about additional Playbooks, containing communication strategies and information to use when responding to other types of emergencies.

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