Help for Dealing With Plant Emergencies
Small Plant News is a monthly four-page, four-color newsletter published by the U.S. Department of Agriculture’s (USDA) Food Safety and Inspection Service (FSIS). It is targeted to small and very small Federal- and State- inspected establishment owners and operators who produce meat, poultry, and processed egg products.

Small Plant News’s mission is to support the “FSIS’ Strategic Implementation Plan for Strengthening Small and Very Small Plant Outreach” by providing pertinent information for plant owners and operators so they can produce safe food and, ultimately, ensure the success of their livelihoods. The newsletter strives to do this through:

✔ Informing and educating small and very small plant owners/operators on FSIS news with current and meaningful information in an easy-to-read format.

✔ Assisting plant owners and operators in incorporating FSIS rules and regulations into their daily operational practices with “plain language” information.

✔ Fostering small and very small plants’ ability to stay in business and produce the safest food by providing essential tips that will encourage the highest sanitation standards, paperwork compliance, and cost-saving measures.

✔ Honoring FSIS’s obligations to small and very small plants by providing a mechanism that increases two-way dialogue between plants and the Agency.

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Introduction

Emergency Preparedness and You. “Emergency” is defined as “an unexpected, serious occurrence or situation urgently requiring prompt action.” Many types of emergencies can affect your business; some of them can be devastating, draining you both financially and emotionally. However, with proper planning, you may be able to avoid some of the most common emergencies or, at least, lessen the negative impacts that may accompany them.

The USDA’s FSIS has developed this guidebook to assist you in preparing for, responding to, and recovering from some of the most common types of emergencies that you may encounter at your plant.

Although FSIS does not require plants to have a written emergency plan, having written steps may reduce confusion and save time when responding to an emergency. You can use this guidebook as a starting point for thinking about the types of emergencies that might occur at your plant and developing written procedures for your employees to follow.

There are several things a prudent plant owner/operator should consider having in place prior to the occurrence of any emergency. These include the following:

1. Always consider the needs of persons with disabilities when creating emergency procedures. This may include a buddy system, mounting strobe lights in work areas, or implementing an emergency pager system.

2. Compile a list of emergency contact phone numbers for employees, as well as numbers for fire, police, the FSIS District Office, utility companies, the local Federal Bureau of Investigation office, etc., in a single place. This increases the ability to report an emergency effectively and receive needed assistance.

3. Create an employee call-down system to notify employees of the plant’s operational status.

4. Have a system to keep track of who is in your plant at any given time (employees, visitors, inspection personnel, etc.).

5. Develop an emergency evacuation plan consisting of evacuation routes and a designated spot outside of the plant where people will meet once they have evacuated to ensure that all occupants have gotten out safely (this is why you should know who is in your plant at any given time). Designate who will give the order to evacuate and who will give the order to go back inside, and include some kind of line of succession so others are authorized to act if the designated person/people are not at work. Have the evacuation route printed...
and posted throughout the plant; although, for a very small facility, this may be unnecessary. Exits should be unobstructed, clearly marked, and visible in situations where there are low or no lights.

6. Install emergency lighting.

7. Have some form of alarm system to warn everybody in the plant about the emergency. You could even have a distinctive alarm for each type of emergency.

8. Make sure all employees know what to do in case of an emergency at your plant.

9. Review your insurance policies to make sure you have enough coverage, as well as the right type of coverage.

10. Test the emergency procedures you develop with your employees.

Beyond these 10 basic considerations, there are other things that you can do to mitigate the effects of an emergency. The following pages address some of the most common emergencies you might have to face, such as break-ins/thefts, hazardous chemical release, water contamination, power outages, and hazardous weather. For each event, this guidebook outlines steps you can take to prepare for, respond to, and recover from the situation.

Please note: Although not specifically covered in this guide, owners/operators of slaughter facilities have the additional responsibility of planning for the care and humane handling of any live animals that may be on the premises during an emergency. Take time to consider, among other things, how you would provide: potable water for the animals to drink, feed if the emergency lasts 24 hours or more, transportation to a safe location in the event of an evacuation, and how you would handle any animals injured during the emergency. Remember, humane handling regulations must always be followed, even in an emergency. However, when planning for the care of animals during emergencies, always keep human safety your top priority.
Break-Ins/Thefts

Recently, there has been an increase in reported crimes involving theft of product. This includes stolen delivery trucks, products taken out of vehicles, and actual breaking and entering into facilities. In these situations, it's always better to be prepared before an event occurs.

Prepare

- Develop and implement a Food Defense Plan. Taking steps to protect your investment through simple steps, such as security lights and locks, can make a big difference when preventing crimes. Talk to your inspector-in-charge (IIC) or call the Small Plant Help Desk 1-877-FSISHELP (1-877-374-7435) for templates to help you develop a Food Defense Plan.

- Maintain organized and detailed records of property, including:
  - Vehicle identification numbers,
  - License plate numbers,
  - Receipts for major purchases, and
  - Insurance agent contact numbers and policy information.

Keep this information in a secure location, such as a fire/waterproof safe or safety deposit box.

Respond

- Take an inventory of missing items. Include, where applicable, lot numbers, quantities, and product types stolen.

- Report the theft immediately to local law enforcement.

- Notify your insurance company.

- Contact your FSIS IIC and your District Office.

Recover

Unfortunately, there is little that an owner can do to recover product after a break-in has occurred. However, it can provide an opportunity to assess how the theft transpired in order to prevent it from happening again. You may wish to talk to local law enforcement or a security management professional. They may identify helpful suggestions on how to make changes in your facility to prevent theft in the future.
For any company that uses or stores hazardous materials, there is always a chance of a spill or leak. While training for chemical spills is required by Federal Occupational Safety and Health Administration (OSHA) regulations, the responsibility falls on you to keep your employees, your products, and the environment safe.

Prepare
- Maintain and be familiar with the Material Safety Data Sheets information. These sheets contain important information concerning chemical handling during emergencies, such as flammability and treatment for ingestion, inhalation, or skin contact.
- Clearly describe procedures facility personnel should implement in a Response Management System.
  - Include procedures for employees who stay behind to shut down critical plant operations before they evacuate.
- Contact your local emergency response organizations, such as fire departments, to notify them of the potential response equipment they may need in the event of an emergency at your location.
- Conduct practice drills to ensure evacuation routes are unobstructed and known by the entire staff.
Remember to evaluate your plan for potential changes when you introduce new chemicals into your plant.

Know what impact chemicals may have on your product.

**Respond**

- Assess the risk of the spill before determining what actions to take. Some things to consider include:
  - The amount of chemical spilled. A highly toxic chemical, spilled in even a small quantity, may require a full emergency evacuation.
  - The properties of the spilled chemical. Is it corrosive, flammable, toxic, etc.? Is it liquid, powder, or gas? What are the possible routes of entry if it is toxic?
  - Any other special circumstances, such as: the location of the spill, ventilation, knowledge of the personnel, specialized equipment needed, etc.

- If necessary, follow your predetermined evacuation plan. Prevent access for any non-essential personnel to reduce the possibility of exposure/contamination.

- When necessary, notify your local emergency response authorities of the situation and what actions you have taken so far.

- If appropriate, take action to contain the spill. Remember that your actions should be dependent upon the properties of the chemical.

**Recover**

Once the chemical spill is contained, dispose of chemical waste in an approved manner. You will then need to decontaminate your personnel and your facility. You need to determine the amount of exposure versus the amount of contamination. Things to consider when determining the amount of contamination include:

- The amount of material to which you have been exposed,
- How long you have been exposed,
- Concentration of the material,
- Physical state of the material, and
- Ambient temperatures.
When decontaminating your facility, always work from dirty to clean. Steps should be tailored to the particular spill and may include:

- Increasing ventilation,
- Rinsing the area with copious amounts of water,
- Washing and sanitizing the area and equipment, and
- Condemning affected product.

Document your procedures in depth, both for your own records and for reporting to regulatory authorities.

After the spill has been remediated, evaluate your response for possible improvements. Were there any unnecessary risks or exposures? Did your plan work as it should or were there unexpected problems? Was your team adequately trained? You can use the answers to these questions to help you improve your response should a spill happen in the future.
Water Contamination

The water supply at your plant may be more vulnerable to contamination than you think. Contamination may be in the form of hazardous chemicals, bacteria, viruses, parasites, or heavy metals. A few of the things that may result in contamination of the water required for your operations are: natural disasters, runoff from farms and fields, leaks from underground fuel or chemical storage tanks or septic systems, leaking/leaching from hazardous waste sites and landfills, improperly installed plumbing, failure of water purification systems, and intentional contamination of wells or other water supply systems. Since a potable water supply is essential for production, it’s a good idea to plan ahead and develop ways to cope with this problem before it occurs.

Prepare

To begin with, let’s look at prevention. A good place to start is with the FSIS sanitation regulation found in Title 9 of the *Code of Federal Regulations* (CFR) Part 416.2:

- “Prevent back-flow conditions in and cross-connection between piping systems that discharge waste water or sewage and piping systems that carry water for product manufacturing.”
  - Have a qualified plumber check your pipes and connections to look for cross-connections. Install any necessary back-flow devices.
  - Check/test your back-flow devices regularly to ensure they are working properly.

- Ensure that water complies with the U.S. Environmental Protection Agency’s (EPA) National Primary Drinking Water regulations (40 CFR 141).
  - For a municipal water supply, you must have a water report, issued under the authority of the State or local health agency, certifying or attesting to the potability of the water supply.
  - For a private well, you must have documentation certifying the potability of the water supply. Private wells need to be certified at least twice per calendar year.
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Prevention not included in FSIS regulations:

- If you have a septic system or a storage tank of some kind on your premises, ensure it is functioning properly and not leaking.
- Properly dispose of wastewater, manure, and any chemicals used in your plant.
- Inspect your premises to determine whether it is possible for anyone to contaminate your water supply intentionally. Correct any vulnerability you find.
- If you have a private well, consider having the water tested more than twice a year. There are also commercially available water test kits that might be used in between the twice-a-year testing.
- If you use some type of water purification/decontamination system, schedule regular checks to ensure that it’s working properly.

As a small/very small meat, poultry, or egg processing plant owner/operator, it may seem like a very difficult task to prepare for the possibility of a contaminated water supply, considering the large amount of water used during production every day inside your plant. However, it is possible. Think about these things as part of your preparation:

- Keep your utility companies’ emergency phone numbers handy.
- Know what local health department you should contact in the case of contaminated water, and have the phone number readily available.
- If you use a private well, have a plan in place to prepare it prior to a natural disaster, such as a flood or hurricane. It’s recommended that you plug or cap the well.
- Talk to other business owners to see if you can work out some kind of mutual arrangement to share resources in the event of a water contamination problem that affects your plant, but not the surrounding area.
- Have a water decontamination plan in place. The plan will depend on whether the water to your plant is supplied by a private well or a municipality and the type of contamination.
- If you use a private well, have a plan in place to disinfect it. The method used will depend on your well.
Investigate the possibility of having potable water delivered to your facility. Have a delivery plan in place, if possible.

- Know the source of the water supply. Verify that your source can deliver the quantity of potable water you will need.
- Ensure that the water delivered will meet the EPA’s National Primary Drinking Water regulations and comes from an approved potable water supply. Have documentation from the source on file to prove it.
- If your source uses tanker trucks, know what the previous contents of the tanker were, where the tanker comes from, and how and where the tanker was sanitized.
- Plan where potable water delivered to your plant will be stored.

Ensure your employees know what to do when water contamination occurs. For example, do they know they cannot use non-potable water in edible production areas, even if it’s just for washing down a floor?

Determine who your employees should contact if they notice that water is discolored, cloudy, or has an odor.

Have a plan in place to determine when it’s time to send your employees home for the day.

Have a recall plan in place. If product is produced and shipped prior to discovery or notification that your water supply is contaminated, that product must be recovered.

Some of the suggestions made here may not be practical for your particular situation. Make a list of preparations that are more specific to your plant. Remember, you will not be able to produce product without a potable water supply.

**Respond**

When the water supply to your plant is contaminated, it is important to respond quickly to minimize the potential threat to human health and loss of product.

- Immediately stop all production.
- Retain all products at the plant. Do not ship any product until you determine what products may have been produced with the contaminated water.
Keep in contact with FSIS employees — notify the Consumer Safety Inspector who covers your plant about the situation. Keep FSIS personnel in the loop, and notify them of your decisions. You may also wish to notify the FSIS District Office.

Notify employees of the situation and instruct them on what actions they should take.

Determine when the contamination occurred. Any product produced with non-potable water should be condemned, denatured, and destroyed. You may wish to retain affected product prior to condemnation and discuss disposition with FSIS personnel to determine if any product can be reprocessed. You may also wish to discuss disposal with FSIS personnel – the reason the water was contaminated can affect the method of disposal.

If you cannot determine when the water supply was first contaminated, keep all products in the plant under retention. Products that have been shipped will likely have to be recalled. It may be necessary to recall all products produced after your last water potability certificate – up to the point where you knew the water became contaminated. Consult with FSIS inspectors, and implement your recall plan if necessary.
If you became aware of the contaminated water through a water advisory issued by a State or local authority, contact the authority who issued the advisory. Find out what the contamination problem is and when the last water potability test was done. This will help you determine what product has been affected.

Review your Hazard Analysis and Critical Control Point plan. Determine if any of the interventions included in the plan (or interventions applied that are not a direct part of your plan) mitigate the harm to products caused by the contaminated water. Determine the risk for each type of product you produce.

Keep records of the amount of any product that is disposed of, and fill out all appropriate FSIS disposal forms. Ensure that an FSIS employee can verify and confirm proper disposal.

Implement your water decontamination plan or your potable water delivery plan, if needed.

Implement your well disinfection plan, if needed.

If you have an agreement with another facility to share resources, determine if you should contact them for assistance.

Recover
Recovering from a contaminated water situation will depend both on the type of contamination and how long it took to decontaminate the water supply. It may be days before you can resume production in your establishment.

Test or have your water tested for several days to ensure that it is contamination free before you resume operations.

Proper sanitation is important. Clean and sanitize all equipment, including aprons and gloves worn by employees, product contact surfaces, and work areas according to FSIS sanitation regulations (9 CFR 416), prior to resuming operations. Ensure FSIS inspectors have the opportunity to perform a sanitation inspection.

Ensure all affected product has been properly disposed of and keep records of the amount. Fill out all appropriate FSIS disposal forms. Ensure that an FSIS employee can verify and confirm proper disposal.

After the crisis is over, assess how you handled the situation, and make any necessary changes to your preparation and response strategies.
Power Outages

Power outages can occur for many reasons, including bad weather such as high winds and ice storms, traffic accidents where a vehicle hits a power pole, or falling trees or tree limbs. The cause of the outage may dictate how long you are without power. Being properly prepared can help you cope with any outage, whether it lasts a few minutes or several days.

Prepare

Part of good preparation is prevention. Inspect the premises around your plant, and look for hazards such as limbs near or over power lines. Have the electrical lines and connections both inside and outside of your plant inspected by a qualified electrician.

In addition to prevention, consider the following as part of your preparation strategy:

- Keep your utility company’s emergency phone numbers handy.
- Have a standby/emergency generator installed by a trained qualified electrician to keep essential equipment running. Test the generator regularly.
- Have fuel on hand for the standby/emergency generator. Have a plan for fuel delivery in case you run out.
- Have an emergency lighting system, with special attention paid to lighting stairwells, hallways, and production floors. The lighting should be sufficient to allow evacuation, if necessary. Test your emergency lights regularly.
- Have flashlights with spare batteries.
- If your company normally relies on a cordless phone, have a backup means of communication available, such as a corded phone, cell phone, or radio.
- If you keep records on a computer, have your computer hooked up to a surge protector and an uninterruptable power supply (UPS). Back up your computer regularly.
- Have a battery-powered or crank-powered radio that allows you to get up-to-date news and weather reports. Keep spare batteries on hand.
- Have a plan in place to get ice or dry ice delivered to your plant if you cannot keep your coolers or freezers running.
• Know what equipment needs to be shut down and what equipment cannot be shut down. Have a plan for a controlled shutdown of equipment.

• Talk to other business owners to see if you can work out some kind of mutual arrangement to share resources in the event of an extended power outage.

• Ensure your employees know what to do during a power outage. For example, do you have them stay at their positions or go to a common area, such as a break room?

• Have a plan in place to determine when it’s time to send your employees home for the day. The reason for the power outage will probably play a significant role in the decision.

These are just a few suggestions. Give it some thought, and you’ll probably come up with quite a few additional ways you can prepare for a loss of electricity at your plant.

**Respond**

Properly preparing for a power outage makes responding during the loss of electricity much easier. When the power to your plant goes out:

• Note the time the power outage began.

• Check your circuit breakers or fuses.

• Check to see if the power is also out in the surrounding area.
  - If the power is not out elsewhere, the problem may be with the electrical system in your plant. Call your electrician.
  - If the power is out elsewhere, report the outage to your electric company.

• Turn off all electrical equipment in your plant. Unplug equipment that can be unplugged, and shut off the circuit breakers to major pieces of equipment. Do this to:
  - Avoid power surges that could damage the equipment, and
  - Avoid equipment suddenly becoming energized and hurting someone when the power is restored.

• If you have a standby/emergency generator, be sure the main circuit breaker is off and locked out before starting it up.
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If the power outage is due to downed power lines, be very careful when going outside. Instruct your employees to do the same. Do not attempt to move downed lines or anything touching a downed line.

Make sure your employees are informed of the situation and know what to do.

Determine if any operations in your plant can continue in a safe and sanitary manner without power. Keep in mind you will need proper lighting and potable water. If you have an agreement with another facility to share resources in the event of an extended power outage, determine if it is affected by the same outage. If not, decide if it’s time to utilize that option.

Keep in contact with FSIS employees – notify the Consumer Safety Inspector who covers your plant about the situation. Keep FSIS personnel in the loop, and notify them of your decisions. You may also wish to notify the FSIS District Office.

Retain product that was in the process of being cooked, but did not reach the final cooking temperature, and discuss disposition with FSIS personnel to determine if any product can be reprocessed.

Foods must be cooled and held at a temperature at or below 40°F. Frozen foods must stay frozen.

Decide if it’s time to notify your ice or dry ice supplier, if you have one, that you need a delivery. If you use dry ice, be mindful of the possibility of carbon dioxide buildup if it is used in an enclosed space without proper ventilation. Ventilation may not work without electricity. It depends on your system.

A refrigerated vehicle may be an option if the power will be out for an extended period of time.

Remember, what you do to respond to any power outage will depend on your particular business (the type of plant you have), the reason the power outage occurred, and the length of time the power is out. The steps mentioned here may not include everything you can think of to do during a power outage.
**Recover**

Your plant’s recovery will most likely depend on the length of time you were without power.

Once power is restored to your plant:

- Note the time the power outage ended.
- Let the Consumer Safety Inspector who covers your plant know that the power has been restored. You also may wish to notify the FSIS District Office.
- Notify your employees and make sure they know what they are supposed to do.
- Check internal product temperatures. They should be 40 °F or lower for products held in a cooler or on ice. If not, make determinations about product disposition.
- Turn on your most essential equipment first. Wait 10 to 15 minutes before reconnecting less important equipment.
- Flip the circuit breakers back on.
- Shut down your standby/emergency generator if you were using one. Transfer the “load” back to your main electrical system.
- Restock any used spare batteries and make sure you still have spare fuel for your standby/emergency generator.
- Ensure your water supply is potable.
- Proper sanitation is important. Clean and sanitize all equipment, including aprons and gloves worn by employees, product contact surfaces, and work areas, according to FSIS sanitation regulations (9 CFR 416) prior to resuming operations. Ensure FSIS inspectors have the opportunity to perform a sanitation inspection.

After you have been through a power outage, review your response and how well prepared you were for the situation. Do you need to make changes? What did you do well, and what needs improvement? If you have a written plan, adjust it according to what you learned.
Hazardous Weather

No matter where you live, hazardous weather can affect your operations, whether from tornados, blizzards, or hurricanes. Possible problems resulting from hazardous weather may include flooding, power outages, property damage, or being stranded either at your facility or away from it. As with other emergencies listed in this guidebook, prevention can help lessen the effects on your business. Also review the section on power outages for additional guidance.

**Prepare**

- Keep aware of potential emergency weather situations by keeping a radio, TV, computer, or other device on hand.
- Always keep an emergency kit available in your plant. This kit should include first aid components, bottled water, high-energy food (such as granola bars), and blankets.
- Keep a list of emergency phone numbers and contacts readily available and posted in conspicuous locations.
- Keep battery-powered or crank radios and flashlights available – and do not forget spare batteries. It is also a good idea to keep fire extinguishers throughout your establishment. Make sure you read the instructions and understand how to operate them before you need to use them. Make sure they are current as they expire and need testing.
- Identify the safest location inside your facility in case of severe weather, such as tornados or hurricanes. These locations should be away from windows and other areas with less structural support. Ensure these locations can accommodate all of your employees, including those with disabilities.
- Plan and practice hazardous weather emergency procedures. Make sure employees understand when to go to the safe locations previously identified.

**Respond**

- Pay attention to severe weather warnings issued in your area, and follow the advice given.
- When necessary, evacuate your personnel to the preselected safe areas of your establishment. Ensure everyone is accounted for and check for possible injuries that may have occurred during the evacuation.
- Have call-down procedures to notify employees of plant status if the
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An emergency occurs outside plant hours of operation.
In some cases, severe weather may force you to close your establishment early and send your employees home. When making this decision, remember to take into account the type of weather predicted and the obligations and commute times of your employees.

**Recover**
Recovery efforts will depend on the type of weather affecting your establishment. Always remember to use caution when removing debris or accumulations of snow or ice. If you live in an area that is often affected by severe weather, you may want to contract out recovery services to another company, such as snow or downed-tree removal.
Acknowledgements

Preparation of this guidebook could not have been possible without the assistance of the following organizations, individuals, and resources. Visit their Web sites for more information.

- Minnesota Department of Health, August 2007 Fact Sheet titled “Food Safety During Power Outages in Food Establishments.” www.health.state.mn.us/divs/eh/food/fs/powerout.html
- United States Centers for Disease Control and Prevention
  - www.cdc.gov/healthywater/emergency/safe_water/wells/
  - www.cdc.gov/healthywater/emergency/safe_water/personal.html
  - www.cdc.gov/healthywater/emergency/safe_water/wells/disinfection_wells_bored.html
  - www.cdc.gov/healthywater/emergency/safe_water/wells/disinfection_wells_drilled.html
- United States Environmental Protection Agency www.epa.gov/safewater/faq/emerg.html

If you need additional resources that FSIS’ Office of Outreach, Employee Education, and Training offers, call the Small Plant Help Desk at 1-877-FSISHELP (1-877-374-7435) or email InfoSource@fsis.usda.gov. Also, visit the Small and Very Small Plant Web page located on the FSIS Web site at www.fsis.usda.gov to obtain information on training, workshops, and technical information to suit your needs.
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The Small Plant Help Desk
A resource for small and very small plants

Call toll-free 1-877-FSISHELP (1-877-374-7435).

Knowledgeable USDA-FSIS specialists from the State Outreach and Technical Assistance staff are available weekdays 8:00 a.m. to 4:00 p.m. ET to give you personal assistance on matters relating to the regulation of meat, poultry, and processed egg products. Or email questions to infoSource@fsis.usda.gov.
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